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EDITORIAL.

IT is quite time to be preparing for the meeting of the American Pharmaceutical Association, to be held at Atlanta, Georgia, on the first Tuesday (the 3d) of September.

We hope that, among other things to be remembered, the necessity for raising $500 to balance a corresponding amount offered by the Joint Committee for the establishment of the "Centennial Fund," will receive proper consideration.

EITHER Prof. C. Lewis Diehl, of Louisville, Ky., or Mr. Charles Rice, at 27 Great Jones St., New York, will be pleased to furnish printed blanks to those who may desire them for recording experiments according to Prof. Diehl's plan for making fluid extracts, as described in the May number of NEW REMEDIES.

PHARMACISTS are cautioned to look out for a man who has for a few weeks past been calling on the druggists in New York and Brooklyn, asking to be shown "Italian Cosmetic" (Senes'), of which he generally purchases a roll. About 50 of these druggists were shortly afterwards served with a summons from the Supreme Court to show cause why they should not be fined $1,000 for selling an imitation of this cosmetic, bearing a counterfeit label. As there are no ready means for telling the fraudulent from the genuine, it will be difficult to prove that the sellers knew the article to be fraudulent, and the suits are probably instituted chiefly through malicious motives.

MATERIA MEDICA, PHARMACY, AND THERAPEUTICS.

THE MORPHIA VALUE OF COMMERCIAL POWDERED OPIUM.*

BY GEORGE D. HAYS, PH.G.

[AFTER giving a review of several processes usually employed for assaying opium, among them the officinal process of the U. S. Pharmacopœia, which the author finds to yield unreliable results, he continues as follows:]

A fresh portion of the drug (powdered) was treated with water until exhausted, the liquid evaporated to a small bulk, and the concentrated infusion precipitated with the officinal quantity of ammonia water. The precipitated morphia was filtered off, and the filtrate exposed in a capsule to a warm atmosphere. The excess of ammonia was thus expelled, and a further precipitate of impure morphia occurred. As before, after repeated experiments with different samples of the drug, obtaining like results, this method was also abandoned. The impure morphia which had been obtained in these experiments was dissolved in dilute acid, and the colored solution, thus formed, treated with animal charcoal. When decolorized, it was filtered, the charcoal thoroughly washed, and the washings, together with sufficient water of ammonia, added to the filtrate. The morphia which then precipitated was found to be largely contaminated with phosphate of calcium derived from the charcoal. Samples of this latter, from which the phosphate of calcium had been entirely removed, lost, in a like measure, their absorbing power.

Several methods were adopted with a view to separate the alkaloid from the calcium salt, but not giving accurate results they were in turn abandoned. Other experiments were instituted in which the solution of morphia salt was treated with caustic potassa in excess, by which means the phosphate of calcium was precipitated and the morphia held in solution. The mixture was filtered, the precipitate washed with solution of potassa, and the filtrate carefully neutralized with hydrochloric acid, and allowed to stand for twenty-four hours. This gave by far the most satisfactory results that had as yet been obtained, but the process was far from perfect. The next method tried was a modification of that proposed by Dr. Gregory. The infusion of opium was mixed with a solution of calcium chloride, and evaporated cautiously to the consistence of a soft extract. This was triturated with water, thrown upon a filter and the meconate of calcium, thus rendered insoluble, well washed, the washings being added to the filtrate. The solution

* Abstract of a thesis presented to the College of Pharmacy of the City of New York.

of muriate of morphia thus obtained was decolorized with animal charcoal, filtered, and the charcoal well washed with hot water. The liquid being neutral, the phosphate of calcium remained undissolved. The filtrate having been evaporated to a small bulk, water of ammonia was added to it in the slightest possible excess, and the whole allowed to stand for twenty-four hours, the morphia then separating in clear crystals. A filter was dried until it ceased to lose weight. This weight was then accurately determined, and the liquid and the precipitate poured upon it. The precipitate was washed with cold water and dried, first between bibulous paper, and then by means of a hot-air bath until it ceased to lose weight. On subtracting the weight of the filter from the weight of the whole, the percentage of morphia was determined.

To test the accuracy of this process, a weighed quantity of sulphate of morphia was treated with a solution of calcium chloride in alcohol, and the sulphate of calcium, which precipitated on standing, filtered off. The filtrate was exposed in a capsule to a warm atmosphere until, by evaporation of the alcohol, the muriate of morphia was left dry. This was dissolved in the proper proportion of water, and treated by the method last described. The result was most satisfactory, only a minute fraction of one per cent being lost. This method was accordingly adopted in the subsequent analyses:

Meconic acid was obtained by suspending the meconate of calcium (a by-product of the process) in warm water and decomposing by hydrochloric acid. On cooling, the former acid crystallizes out, being insoluble in cold water.

Narcotina was obtained by boiling the mass, filtered from the infusions of opium in dilute acetic acid, filtering and neutralizing with water of ammonia. The dispensatory states that narcotina is separated by heating from its solution in acetic acid. My experiments, however, do not substantiate this statement.

Codeia being soluble in water, is extracted from opium along with the morphia, but remains in solution when that alkaloid is precipitated by ammonia. From this solution it is obtained by cautious evaporation.

These experiments conducted at home, with every precaution to avoid error, and repeated several times in every case, gave the following average results:

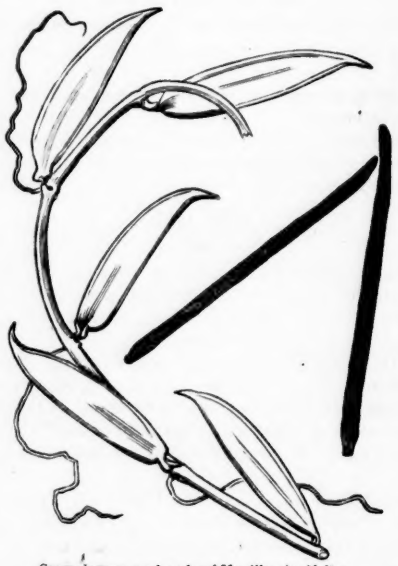
Number of Sample:	*Percentage of Morphia found:*
1	15.72
2	15.41
3	14.16
4	13.34
5	12.39
6	12.08
7	10.83
8	8.95
9	5.20

SCENT-YIELDING PLANTS.

BY G. W. SEPTIMUS PIESSE, PH.D., F.C.S.

VANILLA PLANIFOLIA.

Of all orchids this climbing epiphytal one is the most valuable from a commercial point of view, on account of its scent-yielding fruit. There are several species of vanilla which yield beans or pods more or less fragrant, and of these some five kinds are common in our English markets, the value of which varies from 10*s.* to 80*s.* per lb. The genus Vanilla is indigenous to Peru, Brazil, and Mexico, and some of the species have been successfully cultivated in the West Indian Islands, Ceylon, and the Mauritius. From the last-named wonderfully fine specimens were sent to our International Exhibition of 1862, for which the jurors awarded a gold medal. There



Stem, leaves, and pods of Vanilla planifolia.

is no reason why the culture of vanilla should not be extended into some of our warmer colonies, such as Western Australia and Queensland. Its propagation is by no means difficult. V. planifolia climbs up the tallest trees, and its main stock becomes woody and hard as that of the vine; the root sends up many offsets, which may be separated, and in that way the plant may be increased. Cuttings of the last growths, 2 ft. or 3 ft. in length, may also be made and rooted successfully. The vanilla will produce salable pods the third or fourth year after propagation, and they may then be gathered annually, in September, in increasing quantities for thirty or even forty years. Therefore, he who plants a vanilla forest leaves his son a valuable heritage. Two

good specimens of the plant may be seen in the Orchid house at Kew, and it is also grown plentifully at Syon.

When the pods are gathered, which should be done before they are quite ripe, it is most important that they may be properly cured, otherwise they rapidly become mouldy and lose their scent. Parcels in this condition may often be found at the Mincing Lane drug auctions. The curing of the pods is best effected by drying them in a moderate heat, pressing them with the thumb and finger from end to end, and then brushing them over with an oil that does not itself become rancid, such as that of cocoa or cashew nut. It is at the apex of the pod that the mouldy parasite first appears; the pods then quickly become soft and flabby, or dry and chippy. On the other hand, when vanilla pods are in good condition, they become covered with an efflorescence of needle-like crystals of vanillic acid. The interior of the bean is then soft, unctuous, and balsamic.

In order to obtain the perfume or essence, ½ lb. of such pods are cut up small, and put into one gallon of pure alcohol, of a strength known as 60° over proof, giving the whole a shake up daily. The ingredients must remain together for say four weeks, at which time all that is worth extracting will be found in the spirit, which may then be strained off quite clear and bright. It is then suitable as a flavoring agent, or when blended with other scents it makes delicious perfumery. Those sold under the titles of Clematis, Heliotrope, Wall-flower, etc., mostly contain about one-half in bulk of vanilla extract. About two centuries ago vanilla may be said to have been unknown in this country; it is, however, stated that Morgan, an apothecary, showed to Queen Elizabeth a sample, but he knew nothing more about it than that "it was brought from abroad by some Spanish merchants." At the present time the total annual average crop of all the varieties of vanilla from the several countries which produce it may be estimated at 80,000 lb., representing a value of not less than £150,000.

VETTIVER (ANDROPOGON MURICATUS).

The fibrous roots of this large grass yield a most peculiar but pleasing perfume. If the scent of roses may be termed sweet, then Vettiver has a bitter smell of the myrrh kind. Vettiver grass, which is also known under the name Khus-Khus Grass, grows extensively in Bengal and Southern India. It is there manufactured into awnings, blinds, and sunshades, but it is principally used for screens, which, during the hot season, are placed in doorways and windows, and are known as "tatties," which, when wetted, diffuse a peculiar and refreshing perfume, and the evaporation of the water at the same time cools the air. Vettiver is imported into England in bales of about 2 cwt. each, but the average annual quantity does not exceed 5 tons, and about the same quantity goes to France. When Vettiver is distilled and is good, it yields about 10 oz. of otto for every cwt. Several perfumes, such as Mousseline des Indes and Marechal, owe their specialty to a small addition of this material. Bundles of vettiver are sold for perfuming linen, and when ground it is used as an anti-moth material.

ELDER FLOWERS.

In Nichols's "Progress of Queen Elizabeth" he mentions that at Hawkstead, among the rooms on the ground-floor, was one called the still-room, an apartment where ladies of the Court much amused themselves in distilling fragrant waters. In the Northumberland "Household Book," a work so often quoted by historical writers, there appears the following list of plants, viz., "Roses, Borage, Fumitory, Purcelly, Balme, Walnut leaves, Sage, Elder flowers, etc., for the use of the still-room." The still-room maid to this day preserves her name, though not all her old avocation. The cymes of the elder, after being plucked and placed in a heap, very quickly heat; the corollas then fall off and are separated, by sifting, from the stalks. During the season many tons of these are sold by Covent Garden herbalists. Of corollas 9 lb. are distilled with 4 gallons of water; the first three gallons that come over only are preserved for use under the title of Elder-flower water.—From *The London Garden.*

Alkaloids of the Aconites.*

FOR some years it has been known that the mixtures of alkaloids extracted commercially from *Aconitum Napellus* L. and *Aconitum ferox* Wallich, are not at all identical, and that the approximately pure alkaloids, isolated from the two species and purified, differ in this respect: that while the base from *A. Napellus* yields well-crystallizable salts, that from *A. ferox* does not form any kind of crystallizable salts at all (with some exceptions). Accordingly, the terms aconitine and pseudaconitine have been employed to designate the two alkaloids. These two substances have probably been confused together by most of the previous experimenters, who, moreover, did not obtain the crystallizable basis free from the uncrystallizable alkaloids accompanying them, or formed during the process of extraction.

The researches of the authors show that the crystallizable and physiologically active base of *A. Napellus* is a uniform, homogeneous alkaloid, having, when perfectly pure, the composition $C_{33}H_{43}NO_{12}$, no matter from what sample of root it may be prepared. Under certain conditions, this base readily loses the elements of water, forming a well-crystallized anhydro-derivative, closely resembling the parent base. When subjected to the action of saponifying agents, it

* Abstract from a paper by C. R. ALDER-WRIGHT and A. P. LUFF, of London.

breaks up into *benzoic acid* and a new alkaloid (aconine).*

The corresponding crystallizable base of *A. ferox* is in many respects very similar to aconitine. Like this, it forms a derivative resembling the parent alkaloid, by the loss of the elements of water. The action of saponifying agents, however, sharply distinguishes the *A. ferox* base, pseudaconitine, from the former: for it splits up, by a reaction parallel to the above, into an acid identified as *dimethylprotocatechuic acid*, $C_9H_{10}O_4$, and into a new alkaloid, totally different from that produced in like manner from aconitine, and named by the authors pseudaconine.

Pseudaconitine, when perfectly pure, is represented by the formula $C_{36}H_{49}NO_{12}$; by long exposure in strong alcoholic solution, or by bringing it in contact with excess of dilute hydrochloric acid at 100° C. for some hours, it is converted, by loss of one molecule of water, into the anhydro-derivative, *apopseudaconitine*, $C_{36}H_{37}NO_{11}$. Pseudaconitine is sparingly soluble in water and in fixed caustic alkalies, somewhat more readily in ammonia and sodium carbonate; it is soluble in alcohol and ether more easily than aconitine; when crystallized from ether, or, better, ether and petroleum spirit, it forms transparent needles and sandy crystals. The crystals, when air-dry, are hydrated, while aconitine always crystallizes in an anhydrous condition; the water of hydration is lost at 80° C.

The salts of pseudaconitine are so extremely difficult to crystallize that they are only obtained as varnishes by spontaneous evaporation. Only the nitrate may be crystallized by dissolving the alkaloid in just sufficient dilute warm nitric acid, adding a few drops of concentrated nitric acid, and vigorously rubbing for some time, whereby a thick magma of crystals is formed. This is drained on a filter-pump, and washed with weak nitric acid. By dissolving them in warm water, again adding a few drops of strong nitric acid, stirring, draining, and washing as before, they are obtained perfectly white.

It is evident that the commercial pseudaconitine is liable to be mixed with considerable quantities of amorphous bases. It was estimated that about one-fifth of the material obtained by the authors from Messrs. Hopkins and Williams consisted of such substances; although the amorphous bases were not destitute of physiological potency, yet they appeared to produce far less lip-tingling, etc., than pure pseudaconitine. The nitrate of pseudaconitine being almost insoluble in nitric acid containing 8 to 10 per cent of HNO_3, it would appear desirable that only the crystallized salt, or the alkaloid thence regenerated, should be prepared for medical use, which could readily be accomplished in practice.—From *Jour. Chem. Soc.*, April, 1878.

* $C_{33}H_{43}NO_{12}+H_2O=C_7H_6O_2+C_{26}H_{39}NO_{11}$
Aconitia — Benzoic acid — New Alkaloid. (aconine).

EXPLOSIVE BODIES AND MIXTURES.

BY CHARLES RICE.

[Concluded from page 165.]

V.—EXPLOSIVE PRESCRIPTIONS.

THE following list probably contains most of the substances which have been found to produce explosive mixtures or prescriptions. A number of other substances, however, suggest themselves, partaking of the properties of some of those mentioned below, which may be supposed to have equally dangerous characteristics.

a. Potassium chlorate, and all other *chlorates*, should never be prescribed in powder, mixed with organic or inorganic combustible or oxidizable bodies. If they are to be used in powder, prescribe them *alone;* if desired in combination, give them in solution with the others.

The following, for instance, are dangerous, and have caused serious accidents:

1. Potass. chlor.
   Pulv. Gallæ,
   or Acid. Tannic.

Ft. pulvis: to be made into a gargle. Always dispense the powders separately, or make the gargle yourself.

2. Potass. chlorat.
   P. Catechu.

To be used as a dentifrice; should never be dispensed.

3. Potass. chlorat.
   Sodii (or Calcii) hypophosphit.
   Aquæ.

The two salts must *not* be rubbed together, or an explosion will result; they should be dissolved separately in water, and mixed.

4. Potass. chlorat.
   Acid. Tannic.
   Glycerinæ.
   Aquæ.

This should be prepared by dissolving the tannic acid in the glycerin, and the pot. chlor. in the water, and then mixing. Do not attempt to rub the pot. chlor., tannin, and a portion of glycerin together.

5. Potass. chlorat... ℥ ss. ℥ i. and
   Tr. Ferri chlor.. ℥ ss. ℥ ij. other
   Glycerinæ ..... ℥ ss. ℥ iij. proportions.

Liable to produce an explosive mixture, especially when warmed. Our readers will recall the two instances quoted in our current volume, pp. 27 and 47; see also 82.

6. Sodii chlorat..... ℥ ij.
   Antimon. sulph. aurat..... ʒ i.

M. Takes fire even on gentle trituration, with a crackling noise.

7. The following prescription, although carefully mixed, exploded:

Lac. Sulphur.....gr. iij.
Antim. sulph. aurat.....gr. ss.
Zinc. valer.....gr. i.
Pot. chlorat.....gr. ij.
M. Ft. pulvis. Dentur tales doses no. x.

b. Potassium Permanganate.

This should never be brought into contact with any readily oxidizable and combustible substance. One of the most common mistakes is to bring it together with glycerin. This generally produces an explosion. For instance:

8. Potass. permang..... ʒ i.
Glycerinæ..... ʒ ss.

Nevertheless, they may be combined, but the resulting product will not possess the energetic oxidizing action of the permanganate, because it has expended all its power in oxidizing the glycerin. According to Mr. Amend, the glycerin may be very slowly added and in small portions at a time, when it will cause flashes to rise from the mixture, and the latter finally turns black. Our advice is, never to put it up, but to inform the physician of the difficulty. A certain Dr. Werner, in 1868, published a bogus process, evidently studied out on paper, for making potassium permanganate, in which glycerin was to be used as a solvent; and, in fact, the pulp was to be heated to redness in a crucible!! Dr. Hager exposed the fraud, before it caused any accidents.

9. Potass. permang.....10 parts.
Alcoholis.....15 "
Aquæ dist.....15 "

This may be dispensed by adding the permanganate slowly to the alcohol and water previously mixed, and by dispensing it in an open or very loosely stoppered vial. In a closed vial it will almost always explode.

10. Potass. permang.....gr. x.
Ferri redact..... ʒ ss.
M. Fiant pil. 36.

The ingredients took fire during mixing. On being again prepared, 45 grs. of talc were added to the mixture, which prevented reaction.

c. Chromic Acid.

This is another agent which readily parts with its oxygen. Hence the following prescription, for instance, is dangerously explosive:

11. Acid. Chromici.....(say 10 grs.)
Glycerinæ.....(" ʒ ʒ)

But even in this case, quiet combination may be effected, according to Dr. Mascarel, by adding the latter to the acid drop by drop, and rubbing very slowly. The product, however, will not be what the physician intended; hence, you should not put it up.

12. Potass. Bichrom.
Spts. Æther. Nit.

This is said to have been prescribed and produced an explosive mixture.

We have lately been informed that the well-known *Battery-liquid*, prepared from potassium bichromate and sulphuric acid, has in several instances caused an explosion and destruction of the battery.

d. Oleum Terebinthinæ, and other volatile hydrocarbons are liable to ignite and to explode, by coming in contact with certain powerful reagents.

13. Ol. Terebinth.
Acid. Sulphur.

This has on several occasions been the cause of violent explosions and serious accidents. The addition of sulphuric acid to oil of turpentine, which must be done with the *utmost care* (see NEW REMEDIES, 1878, 10 and 44), produces terebene. Several lotions and mixtures, formerly much used, contain both of the above ingredients. The bottle should, if at all warm, be immersed into cold water.

14. Nitric acid also may cause explosions with oil of turpentine.

15. Iodine acts energetically upon it, producing substitution products, and liberating hydrogen, which may take fire through the violence of the reaction.

16. Ol. Succini,
Acid. Nitric.

has also been known to explode.

e. Iodine.—The following prescription is said to have exploded, owing to the formation of nitrogen iodide, there being a good deal of ammonia in the Lin. Camph. Co.

17. Iodinii..... ..... ʒ ss.
Linim. Camph. Co.
" Saponis..... āā ʒ ij.
M. Ft. linimentum pectori infricandum.

18. Hydrarg. ammoniati .....gr. xx.
Iodinii.....gr. xv.
Aquæ.....aliquot guttas.
Axungiæ..... ʒ iss.

The first two, mixed, and moistened with a few drops of water begin to react upon each other with faint explosive snaps. See NEW REM. V., 40.

f. Miscellaneous mixtures.

19. Argenti Oxid.....gr. xlviij.
Morphiæ Muriat.....gr. i.
Ext. Gentianæ..... q. s.

Make 24 pills and silver them.

This prescription was furnished to a lady at Notting Hill, England, who put the box into her bosom, where it exploded three-quarters of an hour afterwards, severely injuring her, and setting fire to her dress.

Oxide and nitrate of silver, when made into pills with saccharine or other reducing agents, do not usually explode with violence, but cause the pills to swell up rapidly and to fall to pieces.

20. Acidi Nitrici,
Acidi Muriat,
Tinct. Nucis Vom..... āā ʒ ij.

prescribed by a New York physician, exploded after about two hours, as might have been expected.

21. Acidi Nitromuriat..... ʒ i.
Tinct. Cardamomi..... ʒ ss.

Exploded and did serious injury.

22. Potassii sulphidi ..... ℥ ij.
Aquæ Rosæ..... ℥ iij.
Solve et adde
Tinct. Benzoini..... ℥ iij.

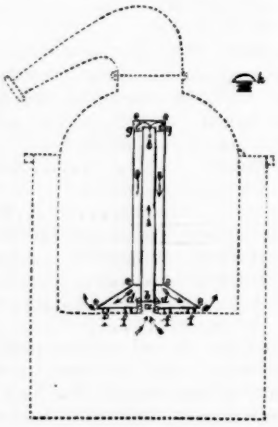
After standing for some time, it burst the bottle.

23. Sodii Biborat.
" Bicarbon..... āā ℥ ss.
Glycerinæ..... ℥ iss.
Aquæ ..... ℥ iss.

After standing for some time, gives off gas which will burst the bottle holding the mixture if tightly corked.

24. Chloride of lime and glycerin or chloride of lime and honey also produce the evolution of gases which are apt to fracture tightly corked bottles.

25. In general, those mixtures, in which a gas is given off, should not be bottled until the evolution of gas is over, unless it is especially desired to confine the gas together with the liquid, in which case the necessary precautions must be taken.



An Improved Steam-Distilling Apparatus.

A NEW form of still, which may be used either for passing live steam through the contents of the still itself, as in distilling certain essential oils from the crude herb, or for ordinary distillation, in which the steam is confined within the steam jacket, has been figured and described by Mr. C. A. Müller in the *Archiv der Pharmacie* (April, 1878). The accompanying illustration will help to explain the description. The still consists of two main portions, the outer steam-chamber having a flange, upon which rests the shoulder of the inner vessel or still proper. For ordinary uses, the bottom of this still is closed by the plug, *h*, screwed into the orifice, *a*, in the bottom of the still, and all the other parts of apparatus, shown by the cut as being inside of the still, are removed. When, however, live steam is to be passed through the contents of the still, the plug is removed from the bottom, and into its place is screwed the upright hollow tube, *b*, open at both ends. This has three projecting points near the upper end, *cc*, upon which is placed a hoop, *gg*, in such a manner that, when the outer tube, *eeee*, is inverted over the inner tube, *b*, there is enough space left for the passage of steam in the direction indicated by the arrows. As already stated, an outer tube, *eeee*, ending below in a funnel-shaped expansion, is inverted over *b*. This funnel-shaped end has several projecting points, *ffff*, upon which it rests, and which permit the passage of the steam outwards, as shown by the arrows. The application of the apparatus is self-evident.

A Remedy for the Eruption Produced by Poison Oak, Ivy and Sumach.

"DR. S. A. BROWN, U. S. N., Mare Island, Cal., believes that he has found a specific for the eruption caused by contact with poison oak, etc. He writes: "This specific is bromine. I have used it with the same unvarying success in at least forty cases. The eruption never extends after the first thorough application, and it promptly begins to diminish. Within twenty-four hours, if the application be persisted in, the patient is entirely cured. I use the bromine dissolved in olive oil, in cosmoline, or in glycerin. The application with glycerine is painful, and, I think, possesses no advantage to compensate for irritation. The strength of the solution is ten to twenty drops of bromine to the ounce of oil, used by rubbing gently on the affected part three or four times a day, and especially on going to bed at night. The bromine is so volatile that the solution should be renewed within twenty-four hours of its preparation."—*N. Y. Med. Record.*

A New Form of Dialyzer.

MR. HUIZINGA, of Groningen, has published a method for preparing dialyzing apparatus which seems to have various advantages. Parchment-paper is cut so as to form, when folded together, a conical bag. The edges are glued together by means of chrome-glue, which is made by adding to a solution of gelatine of 15 per cent a solution of potassium chromate of 3 to 5 per cent. This mixture must be made in a room lit by artificial light, and it must be carefully kept from day-light, as this makes it insoluble in water. It should not be prepared in large quantities, as it will gradually become tough, especially when often remelted for use, although it may not have been exposed to sun-light. The edges of the moistened parchment-paper having been treated with the chrome-glue, the bags are exposed to day-light, and when dry are suspended, kept open and circular by a small hoop placed inside, and filled with water to test their tightness. Any small leak may be stopped by a further application of chrome-glue. A number of these conical bags may be placed into one vessel at the same time.—*Weekbl. f. Naturwet.*

Olive Culture in California.*

DURING the year ending June 30th, 1877, there were imported into the United States 348,431 gallons of olive oil, valued at $491,431, on which a duty was paid of $232,776.75. The quantity and value of pickled olives imported during the same period are not given in the published Treasury reports, as this article is free from duty.

Of the above, San Francisco imported 47,192 gallons, valued at $97,118, on which a duty was paid of $1 per gallon, or $47,192. The value of pickled olives imported into San Francisco for the year was $13,892.

Great Britain imports annually almost 5,000,000 gallons.

Nearly all of this comes directly or indirectly from ports on the Mediterranean, and was produced on land, the rivers and streams of which flow into that sea.

While the olive is found wild in a certain climatic zone of the Himalaya mountains, and is supposed to have been transported in some former age from there to Europe, yet practically all of the olive oil of commerce comes from Italy, Spain, France, Greece, Algeria, Morocco, and other countries which have coasts on the Mediterranean.

Bocardo says that Italy has 1,235,000 acres planted to the olive, producing annually 30,560,000 gallons of oil. Simmonds gives the export in 1854, of that part of Italy and Sicily then composing the kingdom of Naples, at 36,333 tons, valued at $11,263,230. Nieman gives the export from Spain for 1873 as valued at $10,425,600. In 1874, in consequence of the Carlist war, it fell off to $3,716,000.

France, according to Prudent, produces but a small proportion of the olive oil which it consumes, yet annually exports to the value of $2,000,000.

The olive-tree, when once planted, is planted practically forever. Some trees in Europe still in bearing, from the record of the tax-rolls, are known to be older than four hundred years. It stands neglect and abuse, but repays neglect by only bearing on alternate years. In the south of France, by cultivation and pruning, it bears every year. It can be propagated from cuttings of the branches or roots, from layers, from suckers, from the little knots or excrescences that form on the tree near the ground, called by the Italians *uovoli*, and from the seeds in the fruit. When the latter are used, the pulp should be removed from the ripe olive, and the seeds soaked for twenty-four hours in strong lye, to soften them. They should be planted in a sheltered place, and the ground occasionally watered. Planted in this State in February, the young trees would make their appearance in July. The tree can be grafted or budded in every method used on the apple or pear.

It commences bearing in six years, but does not come to the limit of full fruitage for twenty-five or thirty years. The average product from each tree is stated at from ten to fifteen pounds of oil. When planted for an orchard, the trees are placed fifteen or twenty feet from each other. Pruning increases the product, and causes the tree to yield annually, as, like the vine, it bears fruit upon the wood of the preceding year. Cultivation of the ground is not essential, but it increases the product. After the thousands of years that the olive has been cultivated, a few varieties have been selected for abundance of fruit and superiority in quality, as also for fineness of flavor in the oil produced. Where young trees are raised from the seeds, they are invariably budded or grafted from some of these well-known varieties, as the chances are very remote that from a thousand seedlings one would be found of equal value to those now cultivated. About thirty different kinds are grown in France and Italy.

In the south of France, where the most care is given in the preparation of oil for market, the olive ripens in November and December. The fruit is gathered before being fully ripe, but is allowed to remain a few days for the evaporation of any moisture. It is then crushed in an edge-wheel mill of stone, usually drawn by horse-power. The stone resembles a large grindstone with the edge serrated, and the mill is not unlike the bark mills in use in the United States thirty years since. The object in serrating the edge of the stone is to avoid crushing the seeds or kernels, which contain tannin and a little inferior oil. The virgin oil is dipped from the mill and is almost invariably kept to enrich poorer qualities of oil. The pomace is placed in coarse linen bags about eighteen inches in diameter. Several of these are put into a screw-press and the power applied. The oil expressed runs into a tank. This gives the first quality of oil. The pomace is now taken from the bags, broken up finely and again put under the screw-press for a second and third time, on each occasion yielding less oil and that of inferior quality. After the third pressing, the pomace is again broken and a half gallon of boiling water poured into each bag. It is again pressed, yielding an inferior oil used for burning, lubricating, and in the manufacture of castile soap. Even the virgin oil when first pressed is turbid, but clears itself by standing in vessels not open to the air. It should be kept in places having an even temperature. The product of all of the pressings is about three gallons of oil to the bushel of olives.

The best olive for pickling is the Picholine (*Olea oblonga*). In the south of France it is gathered in October, just before the fruit has commenced to turn brown; the finest are selected and placed in a weak solution of soda, to

* Abstract of a paper read by B. B. Redding before the California Academy of Sciences. From *Resources of California*, May, 1878.

which lime has been added. After remaining in this solution about ten hours, or until the pulp can be readily detached from the kernel, they are removed and placed in cold water, which is daily changed for a week. This process removes the tannin from the unripe fruit. When they cease to be bitter, they are bottled in brine, which is usually made aromatic with coriander or fennel. The next best variety for pickling is the *Olea minor Lucensis*, 9th variety in New Duhamel.* This is also valuable for oil.

It is difficult to trace the history of the introduction of the Mission olive into California. It was first brought to America by Antonio Ribora, who took it from Spain to Lima in 1560. Frezier speaks of the olive being used for oil in Chili as early as 1700. Frank A. Kimball, of San Diego, in an article on the olive in the Southern California *Horticulturist*, states that the first olive-trees were planted by the Spanish missionaries at that place in 1769. If this is correct, they are from seed forwarded from San Blas in Mexico by Don Joseph de Galvez, who fitted out an expedition by virtue of a royal order "to re-discover and people the port of Monterey, or at least San Diego," which expedition accompanied Father Junipero Sera in his missionary efforts "to extend the spiritual conquest of the North." Fifty years later it is recorded "that all the seeds that Galvez had been so provident in sending up, took root and prospered. The Fathers built new missions, and continually replenished their stock of converts, which at one time amounted to 20,000. They planted vineyards, orchards, and the olive." From San Diego the tree was transplanted to nearly all of the other missions, and from these missions to various places throughout the State. Except at San Diego, Santa Barbara, and San Luis Obispo, this tree has, as yet, not been planted in orchard form, with the object of making profit from its fruit.

H. N. Bolander, who had charge of the Botany of the Geological Survey of the State, states that in all of the missions there was but one variety of the olive, one of pear, and one of grape.

Mr. Redding made considerable effort to learn the name of this particular olive, and to ascertain if this variety is cultivated in Europe, but without success. John Ellis, who has charge of the horticultural grounds at the University, informed him that the seeds of the Mission olive "come correct, and produce fruit of the same kind as the parent." From the fact that the seeds produce trees bearing the same kind of fruit as the parent, it would be safe to conclude that it is the original stock of the wild olive of Europe or Africa. It is a shy bearer, and has fruit very much smaller than the varieties cultivated in Italy and the south of France. It is probably very valuable as a stock on which to graft or bud more prolific kinds. It has, however, demonstrated that the best varieties can be successfully grown over a wide range in California.

If we imagine two lines starting from Redding, which has an elevation of 528 feet, one on the west side of the Sierra, and the other on the east side of the coast range, gradually ascending as latitude is decreased, until they meet at Fort Tejon, in the Tehachape mountains at an elevation of 3,240 feet, we would have the probable limits in the Sacramento Valley and adjacent mountains below which the olive could be successfully cultivated.

According to Mr. Redding, the following varieties taken from the list in the "New Duhamel" would probably be the most valuable for cultivation in California, which seems to be the only State adapted to olive-culture in the United States.

Olea amygdalina (Olivier Amygdalin), which is esteemed for its fine and abundant oil. With care it is said to yield in oil one-third of the weight of fruit. ("New Duhamel," var. 25.)

Olea craniomorpha (Olivier Pleureur), good for the table, yields pure and abundant oil; requires moisture and withstands the cold. ("N. D.," var. 14.)

Olea oblonga (Picholine), the best variety for pickling, known in commerce as Queen's olive. Not particular as to soil and climate. ("N. D.," var. 11.)

Olea minor Lucensis (Olivier du Lucque) hardy and yields fruit for preserving. ("N. D.," var. 9.)

* New edition of the well-known work of Duhamel de Monceau: "Traité des Arbres Fruitiers," etc.

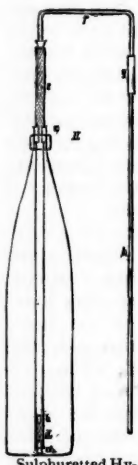
The Separation of Alkaloids.

THE method proposed by Stas and commonly used at the present day, of shaking the aqueous alkaline or, in some cases, acid, solution of the alkaloid with volatile liquids which do not permanently mix with water, is, in some cases, rather troublesome, in consequence of the slowness with which the different layers separate. Mr. E. Heintz recommends a modification of the process, which does away with this drawback, and permits rapid and complete exhaustion of the material. He uses white bole, which has been repeatedly boiled with very dilute chemically pure hydrochloric acid, and afterwards freed from acid. This bole is to be added to the liquid to be examined for alkaloids, the whole to be rapidly dried on the water-bath, for which purpose a very gentle heat, but constant agitation is required, and the dry residue to be powdered. This may then be treated with the solvent. The powder being quite heavy, it settles rapidly, when the liquid may be poured through a filter, the powder be transferred to the latter, and washed with the solvent until exhausted.*—From *Zeitsch. f. anal. Chem.*, 1878, 166.

* This method has been used for a long time by us for the same purpose; only, instead of white bole, we use pure quartz sand, and exhaust the material in a displacement apparatus.—ED. N. R.

A Sulphuretted Hydrogen Generator.

MR. C. A. MUELLER, of Sangerhausen, Germany, recommends the following apparatus for generating sulphuretted hydrogen. Take a narrow, tall flask, with flat bottom and elongated neck, of the shape shown in the cut. Where such a flask cannot be obtained, a large Rhine-wine flask will answer as well. Into this flask is inserted a glass tube, 1 cm. wide, reaching to the bottom of the flask and projecting 10 cm. over the neck. It is held fast in the latter by means of a notched cork *c*. The notch should be large enough to permit communication between the exterior air with the interior of the flask. A centrally perforated cork *b* is pushed 3 or 4 cm. up in the lower orifice, loosely carded cotton (*d*) is next introduced, and the orifice closed with a cork *a*, having several notches on the side. This contrivance permits the entrance of liquid into the interior of the tube; at the same time, it prevents the falling down of any particles of sulphide of iron. The upper part of the tube, at *e*, is likewise filled with cotton to retain any particles of the acid which may be spattered over. By means of a perforated cork the bent glass tube *f* is attached, and to the latter the movable tube *h*, connected with *f* by a short piece of tubing *g*. The latter at the same time serves as a stop-cock, if a short piece of glass rod or glass tubing with fused round ends is inserted into its middle. The current of gas is caused to pass, by laterally pinching the tube.



Sulphuretted Hydrogen Generator.

The apparatus is charged by filling the glass-tube inside the flask, previous to the insertion of the upper layer of cotton, with sulphide of iron; the necessary amount of dilute sulphuric acid is then poured in the flask, and the glass-tube re-inserted. The pressure of the gas in the interior of the tubes *e* and *f* pushes the liquid down, and the level of the liquid in the flask itself should be about 3 to 4 cm. from the neck. The acid is previously covered by a layer of oil of turpentine 1 cm. in height. When the apparatus is to be used, it is only necessary to pinch the rubber tube containing the glass rod, or, if a continuous stream is desired, to remove it altogether. The layer of oil of turpentine prevents any escape of sulphuretted hydrogen odor from the acid liquid in the flask.—*Arch. der Pharm.*, 1878, April.

Algarobilla.

THE pod of a brush growing in the dry sandy northern portion of Chili, *Inga Marthæ* Sprengel, contains up to 70% of tannin, and is of great value as a source of this article.

Upon the Treatment of Strumous Disease by what may be called the Solfatara Method.

To the north of Naples and in the rear of Pozzuoli (or Puteoli of the New Testament, where St. Paul is reported to have landed on his way to Rome for trial), is the crater of an extinct volcano called the Solfatara. The crater is easily accessible by carriage or by foot passengers, and presents the appearance of a mammoth circus ring of somewhat uneven surface, and having at different points—chiefly where the floor joins the circumferential wall—a number of fissures or volcanic vent-holes called *stufe*. From these holes is emitted steam and vapor in varying quantities, charged with fumes of sulphur and arsenic.

Dr. Horatio R. Storer, of Newport, sends to the Boston *Medical and Surgical Journal* an account of the benefits which have been derived from the inhalation by strumous and consumptive persons of these fumes, and among the number he includes the case of his son.

The first attempt of which he has knowledge when these fumes were utilized for medical purposes was by Dr. Abele Franza, in 1871. A Russian affected with advanced tubercular disease was removed from Naples to Pozzuoli, and during six weeks was carried from time to time to the Solfatara, in order that he might inhale the vapors. Improvement was declared to have been immediate and permanent.

A second case of acute tuberculosis was similarly relieved without resort to other measures. Professor de Luca has made numerous observations on the composition of the thermal mineral waters of the Solfatara and on the temperature and exhalation of the greater throat (*fumarola*) of the crater; and his papers on the subject are referred to by Dr. Storer. Young Storer is said to have commenced to improve almost immediately after resorting to the crater, but he also drank of the waters found in the crater, containing sulphuric acid.

The beneficial effect of the treatment is presumed to depend upon the arsenic contained in the vapor.

Milk-weed Juice as an Application for Wounds.

DR. G. F. WATERS, of Boston, says that the juice of milk-weed (*Asclepias Syriaca*) applied to the surface of a wound which has first been carefully cleansed and dried, will be greatly hastened in healing. He recommends blotting paper as a means for drying the surface and for affording a subsequent covering.

[The juice of milk-weed contains a substance closely resembling india-rubber, and it is without question the formation of an artificial scab and consequent protection from atmospheric influences that gives this method any value above ordinary modes of treating wounds. Fibrine of blood-clot is very likely equally serviceable.—ED.]

Danger from the Hypodermic Injection of Morphia.

In the *Chicago Medical Journal and Examiner* of May, E. Fletcher Ingalls, of Chicago, gives a supplementary paper on the dangers which may follow the use of morphia hypodermically. He has received a number of letters from various sources confirming the conclusions at which he arrived in his former paper (*ibid.*, Aug., 1877), and says in brief as follows :

"I know of no precaution which will render the hypodermic injection of sedative doses of morphia entirely safe ; the medicine may be given in this way a thousand times without harm, but the next time it may be the cause of death. Nothing in the patient's history or general appearance can warn us of the danger, for we find fatal accidents among those who have formerly taken morphia with the happiest results. The danger seems to arise from rapid absorption, or injection directly into the circulation, and it is greatly enhanced by the impossibility of removing the poison.

"All are familiar with the rules laid down for the cautious use of the hypodermic syringe, *i. e.*, to withdraw the point of the syringe slightly after the needle has been introduced as far as desired, to inject the solution slowly, etc. ; but these are not sufficient to insure us against accidents.

"Withdrawing the point of the syringe will not necessarily prevent the solution from passing directly into the circulation ; and as to injecting slowly, probably no one would think of occupying more than five, or at most ten minutes in the operation, which would not be long enough to prevent accidents from rapid absorption. So far as danger is concerned, the hypodermic use of morphia seems to stand in much the same relation to its administration by the stomach, as the inhalation of chloroform does to that of ether ; either method may be fatal, but the latter seems much the safest.

"It difficult for those who have administered morphia subcutaneously for years, without accident, to realize that there can be danger from the practice ; and so it is with chloroform, but we all know that accidents happen from this drug in the hands of the most cautious and skilful surgeons, and considering the large percentage of these fifty-five physicians who have had unpleasant or fatal results from the hypodermic injection of morphia, it would not seem strange if extended and accurate statistics should prove this practice almost if not quite as dangerous as the inhalation of chloroform."

The Arkansas Hot Springs.

William H. Barry, M.D., of Hot Springs, Ark., writing to the *St. Louis Clinical Record*, denies that the therapeutical value of these waters depends upon mineral constituents, since there is less organic matter in them than in ordinary spring or well water. No doubt their caloricity is mainly the element of value, but Dr. Barry points out two other properties worthy of attention, as follows :—

"The western slopes of Hot Springs mountain, over which they have flowed for ages past, are covered over with a layer of crust of tufa from ten to twenty feet thick, which was deposited there by these waters. The wooden troughs which conduct the waters to the bath houses soon become covered with a layer of this deposit of tufa ; and so rapidly does it accumulate that the troughs have to be renewed every two or three years in consequence of their filling up with this material. Bits of wood shaped as crosses and placed in the waste waters from the Big Iron bath-house are completely covered with a layer of tufa in fifteen or twenty days, and are sold to visitors as curiosities of Hot Springs. No other waters, anywhere on the face of the globe, are so free to part with their solid constituents. Waters in this State and elsewhere, containing double and triple the amount of calcareous material contained in these, make no appreciable deposit. A like freedom in yielding up their solid constituents may prevail when taken into the human economy, and much of their remedial power may depend on this peculiarity.

"In the second place, these waters, at a temperature of from 95° to 152°, are supercharged with free carbonic acid gas. Free carbonic acid gas is the ingredient which renders water palatable to the taste and agreeable to the stomach. Cold water is charged with this gas, and hence we relish and retain it ; but, when it is heated to ebullition, this element, being volatile, escapes to the atmosphere, and leaves the water nauseous and insipid. The water of Hot Springs, Arkansas, at a temperature of 152°, is not merely charged, but supercharged with free carbonic-acid gas. It is seen bubbling up from the spring at all times. Hence it is palatable and agreeable." [The assertion of the writer that the waters are unusually free from mineral ingredients, as compared with ordinary spring and well waters, would hardly appear to be warranted by the statements contained in the latter portion of his communication.—Ed. New Rem.]

Cocoa-nut Oil.

This is an altogether different thing from cacao oil. The latter is a solid substance at ordinary temperatures, and bears the more common name *cacao butter* (Oleum Theobromæ, U. S. Pharm.). It is prepared from the seed of the cacao-bean, from Theobroma Cacao L., nat. fam. Sterculiaceæ.—Cocoa-nut oil, however, is the oil expressed from the dried kernel of the cocoa-nut, from *Cocos nucifera* L., nat. fam. Palmæ. Many palms bear oil-yielding fruits ; and the oils themselves have much resemblance with each other. Nevertheless, there are sufficient distinctions between them, both chem-

ically and commercially, to hold them apart. Cocoa-nut oil is prepared in South America, the West Indies, and the west coast of Africa, where it must not be confounded with the so-called "palm oil," derived from *Elæis Guineensis*. The greatest quantities of cocoa-nut oil, however, are prepared in southern India and upon Ceylon. The hard nut of the fruit is split into two halves, and the latter are exposed to the rays of the sun to dry. The originally white flesh of the kernel becomes dry, brown externally, greenish-gray internally, and separates itself from the shell. In this condition it is called copprah. The best of this comes from the dryest districts, namely Jaffna and Batticaloa in Ceylon, where solar heat alone is sufficient to dry out the kernel. The copprah is then ground to powder, either in primitive native mills, which are gradually diminishing in number, or in large establishments conducted by Europeans. The ground flour is then packed in hydraulic presses and subjected to two pressings, the last of 6,000 lbs. to the square inch, whereby the oil is separated. The copprah-cake, after pressure, is called *poonac*, and is used as fodder and manure. Dry copprah yields on an average 60 per cent of oil and 40 per cent of poonac. About 10,000 nuts yield one ton of oil.

Cocoa-nut oil, when fresh, is of a pale, yellowish color and almost inodorous; but by keeping it becomes darker and acquires a rancid odor and taste. It solidifies at about 70° F. It is much used as hair-oil, being considered to have special tonic properties. It has also been used with very good effect as a substitute for cod-liver oil in phthisis.

On a new simple Bunsen's Burner.

On page 144 of our present volume, we have given a description and illustration of a very simple and easily made Bunsen's burner, devised by Mr. P. Ebell. Since then, a still more simple contrivance has been made known by Mr. Rud. Biedermann (in *Dingl. Pol. Journ.*). A large cork is divided by a horizontal section into two halves. Into the lower half is cut a gutter, intended to receive the gas-tube. The upper half is perforated in the centre to allow the upright end of the gas-tube to pass out. Both sections of cork are joined together with glue or sealing-wax. A tube of hard glass is then fixed over it in the manner shown in the cut, by attaching it to a wire, which is spirally wound around it, and one end of which is fastened in the cork. By raising or lowering the glass-tube, the flame may be made larger or smaller. The burner may be made steadier by attaching a piece of lead to the cork.

A Simple Bunsen's Burner.

On Russian Mead.

The manufacture of mead, which was quite considerable some centuries ago in Middle and Eastern Europe, especially among the Germans and Slavonians, is now almost entirely confined to Russia, where it is even now gradually pushed to the wall by the spread of the more modern beer-breweries.

Mead was originally prepared from honey, whence it has received its name,* and which imparted to it a peculiar aromatic flavor. At present it is prepared from cheaper materials, chiefly beet-sugar (light-brown "sand-sugar"), and the aroma is imparted to it artificially by the addition of aromatic ingredients. It is brewed in boilers holding about 123 litres; 1,638 grammes of "sand-sugar" or honey are dissolved in 98.4 litres of water, and the whole heated to boiling. Then 1.23 litres of water are added, and the boiling is kept up for 1½ to 2 hours, care being taken meanwhile to remove any scum which may rise to the surface. The liquid having reached a specific gravity of 16 or 18° B., 307 cc. of yeast are added, and the whole is left to ferment for 34 to 46 hours. It is also customary to add hops to the mead, in the proportion of 1 lb. of hops to 1,230 litres of the latter, in which case the hops are boiled with the mead for about 1 hour. The fermented product is clarified by using about ½ lb. of isinglass for every 3,690 litres of mead. The isinglass (best Russian) is soaked for a while in cold water, then removed and freed from the latter by pressing, torn into very fine shreds and added to a little of the mead. The mixture is diligently stirred, and gradually more mead is added, up to about 24 litres, when the solution begins to foam considerably. It is then distributed in proper proportion into the various mead-casks, where it produces complete clarification of the contents in about 24 hours.

The natural color of the finished mead is yellow; but it is often preferred colored, namely red, for which purpose 10 to 20 grammes of crystallized fuchsine, free from arsenic, are dissolved in 310 cc. of absolute alcohol, and the solution added to 1,230 litres of mead. [We cannot recommend fuchsine, in such quantities, as a coloring agent. Indeed, we consider it dangerous, and would recommend the juice of phytolacca berries or cochineal instead.—Ed. N. R.]

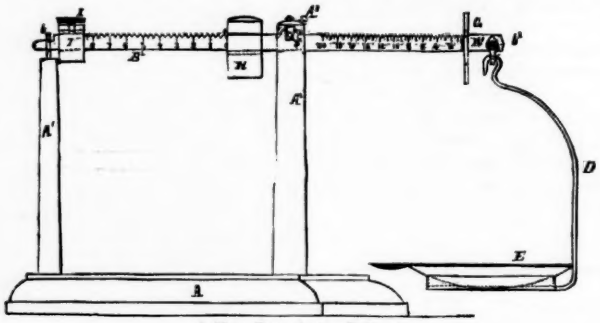
To impart the peculiar aromatic flavor, 26 gm. of cardamom, 7 gm. of cloves, 7 gm. of laurel-leaves, and 13 gm. of clove pink are exhausted with strong alcohol, and the extract is added to 1,230 litres of mead. Some brewers avoid the addition of alcohol, and extract the aromatics by boiling them with the mead before fermentation. The finest "bouquet" is imparted

* Lithuanian: *med-dus*, honey; Sanskrit: *madhu*, Greek: *μέλ-ι*; Latin: *mel*; German: *meth*, honey-wine; Russian: *medowina* or *med* (pronounced *mjod*).

to fermented mead, made from honey, by adding to the casks lumps of sugar impregnated with a little oil of roses. One drop of the latter is sufficient for about 13 litres of mead.—From *Dingl. Pol. Journ.*

Improvement in Weighing Scales.

A NEW scale, specially intended for druggists' use, has recently been patented by Thaddeus Fairbanks, of St. Johnsbury, Vt., and consists of the following arrangement: A beam, suspended at its centre, has a pan, E, at one end to hold the substance to be weighed, and a counterpoise, I, at the other, where it is fixed by a binding screw, so as exactly to balance the pan when the two poises H and I rest at the zero-marks on the scales and the pan is empty. A substance of unknown weight being placed in the pan, the large counterpoise H is moved outward to indicate drachms, and the small one inward to measure the difference of weight in grains. For ordinary dispensing, the weights are to be first adjusted, and the substance to be weighed is then to be placed on the pan until the beam tilts. The arm B has been graduated for half-grain weights.



A New Prescription Balance.

Preparations of Cassa or Mancona Bark.

UNDER the direction of Dr. T. Lauder Brunton, a number of experiments have been made with the bark of *Erythrophlæum Guineense* or mancona bark,* for the purpose of ascertaining the amount of alcoholic extract, and of extractive matter insoluble in alcohol, but soluble in water, present in the bark, and to separate the active principle.

Alcoholic Extracts.—Knowing the difficulty of exhausting the bark, Mr. Walton deemed it advisable to reduce it to a very fine powder, which was attended with considerable personal inconvenience, and gave an opportunity of verifying the statement as to its action on the nose, for although he took the precaution to muffle the mortar, and to cover his nose and mouth with a cloth, yet he inhaled a sufficient quantity to produce violent paroxyms of sneezing, accompanied with a giddy feeling and oppression in the chest, as if it were contracted by means of a bandage, so as to render it difficult to draw a full breath; the eyes also assumed a glassy appearance, with a tightness in the forehead, and a confused feeling in the head. These symptoms continued for several hours, and were also experienced to a certain extent by his laboratory assistant, who took part in powdering the bark.

Having obtained sixteen troy ounces of finely powdered bark, Mr. Walton packed it tightly in a strong cucumber-glass, with a perforated cork at the bottom, covered with a layer of coarsely powdered glass; the top of this percolator was fitted with a sound cork, through which was passed the end of a stout piece of glass-tubing, about six feet long, and one inch in diameter. With this apparatus he proceeded to exhaust the bark, by means of column pressure, with alcohol of 56 deg., and continued to percolate until the spirit passed through colorless. The resulting tincture, on being distilled, yielded a reddish-brown extract, in the proportion of twenty-five per cent of the bark used.

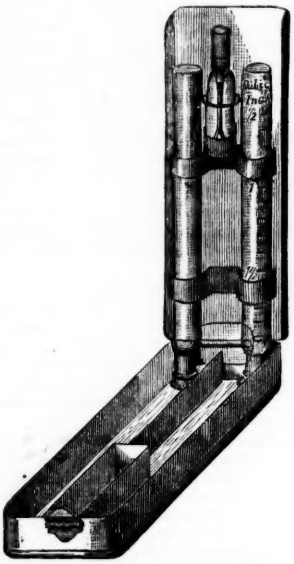
Aqueous Extract, or extractive matter inseparable by alcohol, was obtained by passing distilled water through the powder left in the percolator after exhausting with alcohol; the aqueous solution, on being evaporated, left a hard extract of a deep brown color, weighing two hundred and twenty grains.

Active Principle.—This was obtained, in small quantity, by exhausting the bark with water acidulated with sulphuric acid, and neutralizing with ammonia. This gave a reddish-brown precipitate which was separated by filtration, washed with distilled water, mixed with purified animal charcoal, and dried over a water-bath. It was then boiled with absolute alcohol, filtered, and the filter washed with more alcohol. This solution, on being concentrated, possessed a greenish fluorescence; after standing a few days, it was found to have yielded minute acicular crystals.

* The bark of *Erythrophlæum Guineense* Afz. is called *Tali* or *Teli* along the Senegal river; *Cassa* or *N'Cassa* on the Congo; *Moavi* in Mozambique; *Mancona* along the coast-districts and in the interior. The English name *Sassa* or *Sassy* bark is a corruption of the native *Cassa*.

Having thus far completed the experiments indicated by Dr. Brunton, Mr. Walton proceeded to prepare for him solutions containing definite amounts of alcoholic extract and of aqueous extract.

In order to prevent any confusion or mistake in the nomenclature of the drug, owing to its similarity in name to cascarilla, sometimes abbreviated "cascar." it has been suggested that the tincture, which is the preparation recommended to be used, should be called "tinctura erythrophlæi," and the alkaloid "erythrophlæine."



A Convenient Urinary Test Case.

MR. THOMAS BIRT has devised a little pocket apparatus for determining the presence of sugar in urine, of which the adjoining wood-cut is one-fourth the actual size. The cover of the box is hinged at one end, and serves to support the test vials when in use, as well as when the apparatus is closed. The bottles have glass stoppers, perforated with a capillary opening to allow escape of fluid when gas accumulates, as a result of fermentation. One of the bottles is graduated to tenths of a cubic inch; the other is plain.

A third and smaller bottle is to hold yeast, and has a spoon attached to its stopper to facilitate its removal.

To use the apparatus, the bottles are filled with urine, a little yeast is added to the one having the graduations; both stoppers are introduced so as to expel all air, and the bottles are placed stoppers downward so as to be immersed in a thin layer of urine.

The collection of gas in the upper end of the graduated bottle will indicate the proportion of sugar present.—*British Med. Journ.*

Preparation of Vanillin from Oil of Cloves.

E. TIEMANN, the discoverer of the artificial production of vanillin from coniferin, as well as patentee of the process, has discovered still another method for preparing vanillin, which has likewise been patented. Oil of cloves is diluted with three times its volume of ether, shaken with dilute solution of potassa, the alkaline solution of eugenol thus produced deprived of its eugenol by shaking with ether, and the ether evaporated. The remaining eugenol is converted by means of anhydrous acetic acid into aceto-eugenol, and this is treated with a very dilute solution of potassium permanganate. As soon as the oxidation has progressed far enough, the liquid is filtered, the filtrate made feebly alkaline, concentrated at a gentle heat, then acidified with sulphuric acid, and the vanillin shaken out with ether.

Chromic Acid and Alcohol.

A. GAWALOVSKI has found that chromic acid, which is absolutely free from sulphuric acid, exerts only a feeble action upon alcohol. On pouring 4 to 5 cc. of alcohol into 2 to 3 cc. of a concentrated solution of chromic acid, absolutely free from sulphuric acid, the former is reduced only in traces, and only a minute quantity of aldehyde is formed. At the same time, oily, greenish drops are formed at the bottom of the capsule. A single drop of sulphuric acid, however, added to the mixture, instantly produces formation of aldehyde, and total reduction of the chromic acid. In this case, crystals of blue and green color are deposited at the bottom, and may be considerably augmented by further addition of alcohol, becoming, then, entirely green, which color finally permeates the whole liquid.—From *Zeitsch. f. anal. Chem.*, 1878, p. 180.

Ergot in Pneumonia.

J. B. YEAMAN, M.D., of Crystal City, Mo. (see *St. Louis Clin. Record*), reports a case of pneumonia in a male, aged 30, with the physical signs of the first stage well marked; temperature of 104° and a pulse of 108. At noon on the 13th, commenced taking fluid extract of ergot in doses of ℥ ss. every two hours, the pulse then having risen to 116°, and the temperature to 105.5°. At noon the next day, improvement in every way was marked (muriate of ammonia having also been given ad interim) temperature down to 103°. At 3 P.M. on the 15th, the temperature had fallen to 100.5°. By a mistake, the ergot was suspended on the evening of this day, and at 4 P.M. the temperature stood at 101¼°. At 9 A.M. on the fourth day the patient was up and eating breakfast, and was much vexed at being obliged to return to bed. Convalescence was rapid, and on the 20th the patient went out of doors.

RECENT PAPERS.

Liebig's Annalen der Chemie. 192, 1–2.

The Alkaloids of Sabadilla. (O. HESSE.) The author deduces from the figures obtained by Weigelin, Schmidt, and Köppen, who had analyzed the three alkaloids sabadillia, sabatria, and veratria, much simpler formulæ than had been assigned to them by these experimenters. According to Hesse, the three alkaloids with their formulæ are: Sabadillia, $C_{21}H_{35}NO_7$; Sabatria, $C_{26}H_{45}NO_9$; Veratria, $C_{32}H_{51}NO_9$.

Berichte der Deutschen Chem. Gesellschaft. Nos. 7–9.

A new Acid in Coto-Bark. (J. JOBST and O. HESSE.) Announcing the discovery in coto-bark (see NEW REM. 1877, 145) of a new acid, crystallizing in anhydrous needles, of the composition $C_8H_6O_4$. This was recognized as piperonylic acid, formerly only known as an artificial product.

Bixin. (C. ETTI.) Orlean or annatto contains a coloring matter which the author has obtained pure in a crystalline state. It is of dark-red color with a violet tinge, and has a metallic lustre. It is insoluble in water, and but little soluble in other menstrua except chloroform and boiling alcohol. Its composition is $C_{25}H_{34}O_5$.

La Farmacia Moderna (Naples). No. 1.

On Gelatin and its Use in Pharmacy. (L. D'EMILIO). Drawing attention to certain gelatin-disks made by Pietro de Cian in Venice. The application of gelatin as a vehicle for holding in solution or in suspension solid or liquid remedies is nothing new, but it is not so much used as it deserves to be. The subdivision of a plate of gelatin is a very simple matter, and many patients will take such disks more readily than pills and dragées.

Archivio de Farmacia (Rome). No. 6.

This journal, in attempting to give the composition of certain secret remedies, appears to be very unlucky in copying or translating names. Formulæ are given for: "Pierces golden medical *De*covery;" "Ayer' *Hadre* Vinegar;" "Horsford*'s* Baking Powder;" "Tob*da's* Condition Powder;" "Bishop's *p*anular efferv. citrate of magnesia;" "Mrs. Winslow's *Loo*thing Syrup;" "Worm*'s* Lozenges;" "World's *Stair* Restorer," etc.

L'Orosi (Florence). Nos. 1–6.

On Seawater-Spray. (PROF. P. MANTEGAZZA.) Considers the local application of a spray of sea-water to the fauces and larynx as particularly beneficial in chronic (non-specific) laryngitis, in obstinate catarrhal pharyngitis, in bronchial catarrh, in tuberculosis of first and second stage, and in various forms of scrofula. The first effect of the spray is a gentle excitement, followed by a greatly increased activity and appetite. This indirectly promotes improvement. In local affections of the larynx, etc., the spray seems to exercise a directly sedative and specific effect.

Extract of Pimento as a Revulsive. (DR. ED. COUTURIER.) In cases where the persistent and blistering properties of cantharides would produce too great an effect, and where the ordinary rubefacients, as tartar emetic, croton oil, and thapsia, are not active enough, the extract of pimento may be used, which produces intense rubefaction within ten to thirty minutes. Particular care must be taken to clean the hands after handling it, so as not to get any into the eyes, nose, or mouth.

Revista Farmaceutica (Buenos-Ayres). May.

Safeguards against Poisoning by Arsenious Acid. (J. PAN MOSQUERA.) There have been several methods proposed to diminish cases of poisoning by arsenious acid. The most rational is the proposal to forbid the sale of the article except when mixed with a certain distinctive coloring agent. Already in 1875 the French Government approved a method which consisted in mixing with the arsenic 1 per cent of colcothar (ferric oxide) and ½ per cent of aloes, all to be powdered together. Since then, Grimaud has proposed a new method, which yields a pale blue powder, more repulsive to the eyes than the other, and at once distinguished from all other articles of food. This is obtained by powdering arsenious acid with 1 per cent of ferric sulphate, and 1 per cent of potassium ferrocyanide, which produce a corresponding amount of Prussian blue. This is probably going to be adopted officially.

Journal de Pharmacie d'Anvers. May.

On Oil of Valerian. (G. BRUYLANTS.) Fresh oil of valerian, distilled from the roots, contains about 5 per cent of a resinous matter, having a strong odor of leather, which is left as a residue on fractionating the oil. The most important portions of the oil are those which come over between 155° and 165° C.—being a terpene of the composition $C_{10}H_{16}$ (and may be called *valerene* or *borneene*) and between 205° and 210° C., where an oxygenated compound passes over, $C_{10}H_{18}O$, isomeric with borneol.

Journal de Pharmacie et de Chimie. June.

Analysis of Drosera rotundifolia. (G. LUCAN.) The author employed Legrip's method of "dietheralysis" (see NEW. REM., 1876, 168) for the exhaustion of the fresh plant. 100 grammes of the fresh herb were bruised in a porcelain mortar, then enveloped in a loose bag and suspended in a bottle full of ether. After eight hours the bottle contained an upper ethereal layer of a bluish-green color, and a lower aqueous layer of a blood-red tint. These two layers were separately examined and were found to contain: chlorophyll, albuminoid substance, yellow coloring matter, wax, acrid corrosive resin, free organic acid, glucose, mineral matter.

Copper in commercial Boracic Acid. (C. MEHU.) At a meeting of the Société de Pharmacie of Paris, Mr. Méhu states that boracic acid occurs in the market which is contaminated with copper.

Repertoire de Pharmacie. May.

Ergotinine. (MR. TANRET.) Although this is probably not the *active* principle of ergot, it is nevertheless of interest, as being a veritable alkaloid, obtainable in fine white needles. One kilo of fresh ergot yields about 1.20 grammes of it, but of this only about 0.40 grammes in a crystallized condition. Its formula, according to the author, is $C_{35}H_{40}N_4O_6$.

La Ruche Pharmaceutique. May.

Butyric Acid not in Tobacco Smoke. (P. GUYOT.) Zièse having shown, in 1843, that butyric acid existed among the products of the decomposition of tobacco by heat, the author has endeavored to find it in tobacco smoke, but without success.

On the Commercial Species of Jaborandi. (M. BAILLON.) Stating that three varieties of jaborandi occur in the market: 1. *Piper* (*Serronia Jaborandi*), now become very rare (see NEW. REM., 1877, 103); 2. *Pilocarpus pennatifolius*, Lem. (see NEW. REM., 1877, 131); and 3. *Pilocarpus selloanus.* The latter requires special examination, before its therapeutical identity with the *Pil. pennatifolius* can be assumed as established.

Pharmaceutische Zeitung. Nos. 40–46.

Blue Color produced by Glycerin and Tannin. A correspondent of this journal states that a prescription, containing tannin and glycerin, had lately been returned to him because it had an unusual color. It had become *blue.* He suspected the presence of iron in the tannin, but could not find any.

This statement reminds us of a similar fact repeatedly noticed, and even published some years ago by us, that glycerin occasionally deposits a bluish-violet film around the neck of the bottle in which it is kept, particularly if frequently opened. The nature of this has not been made out as yet, owing to the small quantity of the material, but we suspect that it is nothing else but the effect of dust, containing traces of iron and of tannin settling there, and reacting on each other.

Ammonia in Rochelle Salts. (P. ALPERS.) Reporting to have received a lot of very handsome Rochelle salts, which was found to be strongly contaminated with ammonia.

American Journal of Pharmacy. June.

Maté or Paraguay Tea. (AL. ROBBINS.) The author

found in various samples of maté the following ingredients: tannin, 10–16 per cent; caffein, 0.2–1.6 per cent; ash, 5–10.9 per cent, of which 0.3–4.1 per cent was sand, etc. The pharmaceutical preparations which the author recommends are: 1, an infusion; 2, a solid extract, prepared with alcohol of sp. gr. 0.822; and 3, a fluid extract prepared with alcohol of 0.941, so as to represent grain for grain.

Note on the Alkaloid Sophoria. (H. C. WOOD, M.D.) The author states that he has found the following process to be best suited to the extraction of the alkaloid: The powdered beans of *Sophora speciosa** are moistened with strong alcohol to coagulate the gum and albumen, then treated with water acidulated with muriatic acid and macerated for a week. The expressed liquid is concentrated on a waterbath; when cold, rendered alkaline with sodium carbonate, and then shaken with chloroform. The latter being removed, it is once more treated with chloroform, the chloroform solution shaken with half its bulk of water, acidulated with muriatic acid, the chloroform removed by distillation, and the residue evaporated to a thick syrup. Alcohol is added to precipitate gum, the liquid filtered, and the remaining alcohol evaporated off. The residue having again been made alkaline by sodium carbonate, it is again extracted with chloroform, and the chloroformic solution allowed to evaporate spontaneously. See also p. 232 of the last volume of NEW REMEDIES.

Emulsiones Oleosæ. (L. VON COTZHAUSEN.) Detailing the results of experiments made with various formulæ for emulsions: The most satisfactory was the proportion:

Oil.	*Powd. Gum Arab.*	*Water (a).*	*Water (b).*
2	1	2	q. s. ad 20

the first portion of water (*a*) being that used in forming the emulsion; the other being added afterwards. Equally satisfactory was:

Oil.	*Powd. Gum Arab.*	*Water (a).*	*Water (b).*
4	2	3	q. s. ad 20

Other proportions, as 4 : 1 : 3 : —20; or, 8 : 1 : 6 : —20 were successful only in special cases, and should not be relied on for giving permanent emulsions.

Quinia Pills. (A. NICKLES and T. A. CHEATHAM.) Recommending the following pill-excipients:

Pulv. acaciæ..... 5 parts.
Glycerinæ..... 10 " (A. N.).

and

Pulv. tragacanthæ,
Glycerinæ, q. s. to make a thick paste. (T. A. C.)

In a succeeding paper Mr. J. J. BROWN recommends the following:

Powd. starch	℥ ss.
" sugar	ʒ i.
" tragacanth	ʒ ij.
Water	ʒ ij.
Glycerin	ʒ iv.

Pharmaceutical Journal and Transactions. Nos. 409–416.

The fast-growing Variety of Cinchona, called C. pubescens. (J. E. HOWARD.) The author draws attention to this variety of *Cinchona*, which he regrets to see established into a separate species, as it is properly only a variety of *C. officinalis*. It is of very fast growth, and yields a large percentage of alkaloids, namely, 6 per cent quinia sulphate, 5 per cent of cinchonidia sulphate, and 1.2 per cent of cinchonia and amorphous alkaloid. Increasing age augments the percentage of alkaloids. The sample which Mr. Howard examined was taken from strips of bark which had been left untouched the year before, while the intermediate strips had been removed. The bared spaces in the mean time acquired a new coating of bark—the so-called "renewed bark," and it had been held that the excess of alkaloids generally found in the renewed bark is produced at the expense of the untouched natural bark adjoining. The above results obtained by Mr. Howard, however, disprove this transference theory.

* The root bark of *Sophora Japonica* also contains an alkaloid, which may possibly be related to the above.—ED. N. R.

Quiniretin. (F. A. FLUECKIGER.) On exposing a solution of quinia in water (about 1 in 2,000, saturated) to direct sunlight, the solution turns yellowish or brownish, then turbid, and after a few days deposits a flocculent brown matter. Very little of it remains in solution. Nearly the whole of the quinia has thereby been changed to a new, probably isomeric substance, which the author terms *quiniretin*, insoluble in alcohol, ether, and water, but soluble in acids, with which, however, it does not combine.

The effect of sunlight upon solutions of alkaloids is not confined to quinia. It is also noticed in others, and most in those which are more soluble in water. While solution of morphia is only very slightly colored, and solution of strychnia is scarcely altered, that of brucia turns brown, and a solution of codeia even more intensely.

Meconoiosine, a new Derivative from Opium. (T. AND H. SMITH.) Announcing the discovery, in opium, of a new *chemically indifferent* body (meconine or opianyl being the only other one of this class present), having the composition $C_8H_{10}O_2$, and crystallizing in remarkable leaf-like masses, not unlike the incrustation of crystals upon a rock. The authors have named it *Meconoiosine*. When meconine is heated with slightly diluted sulphuric acid, and when the evaporation has reached a certain point, a beautiful *green* color makes its appearance; under the same circumstances, the new body meconoiosine produces a deep-red solution, afterwards turning purple.

Dialyzed Iron as an Antidote in Poisoning by Arsenic. (W. GIBBONS.) Mentions as advantages of dialyzed iron for this purpose the fact that a large dose of it can be administered without repugnance or difficulty, as it is almost tasteless; and besides, that it is always kept on hand ready for use. His experiments as to its capability of combining with arsenious acid and rendering it temporarily inert confirmed him in the above views.

Notes on Indian Drugs. (W. DYMOCK.) *Bauhinia variegata;* local name *kachnár* (Hind.); *kanchan* (Bomb. and Beng.). The bark is slightly astringent, and is used to check diarrhœa, and in form of an infusion as a gargle in sore throat, etc.—*Zizyphus*, spec., local *unnab* (Arab).* The dried fruit. This is the jujube of Arabic and Persian works on materia medica, and is not produced in India, but is largely imported in a dry state both from the Persian Gulf and from China. The best comes from Jurjan, China and Nipal.—*Cardiospermum Halicacabum;* local *lathapatkari* or *nayapatki* (Beng.); *mooda cottan* (Tam.); *kanpootee* (Bomb.). The root and leaves. Root is aperient; leaves are administered internally in rheumatism and in pulmonic complaints.—*Sapindus trifoliatus;* local *ritha* (Hind. and Bomb.); *pennan kottai* (Tam.). The soap-nut, which has been used in India from the earliest times as a detergent, is considered tonic and alexipharmic.—*Semecarpus Anacardium;* local *bhela, bhilava* (Hind.); *biba* (Bomb.); *shen-kattai* (Tam.). The marking-nut is considered stimulant and digestive. It is used in dyspepsia, piles, skin diseases, etc. The acrid juice is a powerful vesicant, and is often used for producing fictitious marks of bruises.

The Analyst. June.

On the Composition of Honey. (J. CAMPBELL BROWN.) The analytical determinations which are useful in the analysis of honey are the following:

1. Estimation of the water expelled at 100° C., and a trifle above 100°.
2. Water of combination and other volatile matters expelled at a higher temperature.
3. Insoluble matter, pollen, wax, etc.
4. Microscopical examination of the honey, and especially of the pollen.
5. Estimation of the ash and qualitative examination of the same, if large.
6. Estimation by the polariscope saccharimeter of the

* The Arabic name of the Zizyphus Jujuba in a *wild* state is *sider* (*sidr*); in a *cultivated* state *unnab*. The Indian names are *kola* (Sansk.); *kul* (Beng.); *baer* (Hind.).—ED. N. R.

action of a solution of known strength on the polarized ray.

7. The same, after inverting the sugar.

8. Estimation of the total amount of glucose by Fehling's reagent.

Pharmaceutische Post. Nos. 9–10.

On Chrysophanic Acid. (DR. A. JARISCH.) Reporting the results of experiments with chrysophanic acid application in skin diseases, made in the clinic of Prof. R. v. Hebra: A 5 per cent ointment was found to be almost in every case inert. Better results were obtained with a 20 per cent ointment; but this often produced intense dermatitis, spreading far beyond the place of application. The author thought that the same or at least similar effects might be produced by substances which are chemically related to chrysophanic acid, chiefly by *alizarin* and *pyrogallic acid*. While his experiments have not as yet been extensive enough to warrant him in making a positive statement as to their equal usefulness, he has so far found *pyrogallic acid* to have the same beneficial effects as chrysophanic acid, without producing inflammation. Alizarin has also been used with benefit, but pyrogallic acid appears to deserve preference.

Pharmaceutische Zeitschrift f. Russland. Nos. 8–10.

On the Chrysophanic Acid of Rhubarb and the Chrysophan of Senna. (ED. KEUSSLER.) The author's paper, which was honored with the golden Suworow medal, gives a detailed account of the experiments and train of reasoning which finally brought him to the conclusion that the chrysophanic acid of rhubarb and the so-called chrysophan of senna, are identical. He also thinks that he has found emodin in senna, which heretofore has only been met with in rhubarb.

Pharmaceutische Centralhalle. Nos. 16–20.

Revision of the German Pharmacopœia. The Chancellor of the German Empire has asked the consent of the Federal Council to authorize him to appoint a commission consisting of pharmacists, chemists, pharmacologists, and practically experienced physicians, whose duty it shall be to revise the German Pharmacopœia.

Michigan Medical News. May and June.

Idiosyncrasy in Regard to the Action of Quinia. (A. FORD, M.D.) Five grains of quinia sulphate caused intense itching and a rash like that of scarlet fever, subsiding in about four hours, and returning with each renewal of the dose. Morphia was found to prevent these effects of the quinia.

Small Doses of Podophyllin for the Relief of Piles. (A. HAZELWOOD, M.D., p. 111.) One-fifth of a grain of podophyllin, thoroughly triturated with sugar of milk and given in two doses daily, had a very decided effect so long as the remedy was continued.

The United States Medical Investigator. June.

Ampelopsis Trifoliata: "Poisoning and Provings," (J. R. HAYNES, M.D., p. 542.) A dark-red pruriginous eruption, resembling somewhat that of measles, resulted, it is believed, from contact of the plant with the skin.

Xanthoxylum in Dysmenorrhœa. (FRANK BURKE, M.D., p. 545.) Headache, bearing down pains in abdomen, back-ache, pains in limbs, and scanty discharge of dark, clotted blood on alternate days. Boericke and Tafel's xanthoxylum 200th taken for a week before the expected return of menstruation rendered it normal on two succeeding months.

The Homœopathic Times. June.

Wonders of the Materia Medica. (JOHN S. LINSLEY, M.D., p. 58.) Recites a number of cases in which medicines administered homœopathically appear to have been followed by decided amelioration of symptoms.

Pacific Medical and Surgical Journal. June.

Hypodermic Use of Morphia (H. GIBBONS, M.D., p. 6.) Offers no explanations of the cause of sudden death which sometimes follows this mode of using morphia, and gives some precautions to be observed, but without assigning his reasons therefor. He adds a statement of peculiar symptoms which have come within his experience:—The patient sometimes complains that pain existing before an injection of morphia is made, is within 20 or 30 seconds thereafter suddenly aggravated, but passes away in less than a minute, and is followed by the proper action of the morphia. Second, a distressing sensation, which takes the place of the pain, leading often to the expression that the patient feels as if dying, and, likewise, lasting but the fraction of a minute.

Ipecac as a Hemostatic. (Q. C. SMITH, p. 9.) Although Prof. H. C. Wood has declared that he has never known of ipecac being used for this purpose, Dr. Smith has administered it for a number of years as a remedy in hemoptysis (for which he esteems it as the best) and in post-partum hemorrhage. Trousseau refers to its use for this purpose.

St. Louis Medical and Surgical Journal. June.

Hemorrhagic Malarial Fever and its Treatment with Iron and Alum Mass. (WILLIAM A. GREENE, M.D., p. 433.) [Iron and alum mass is made by evaporating the waters of the Rockbridge Alum Spring, of Virginia. According to Walton, the water itself is principally of value in scrofula and chronic diarrhœa. H. R. Noel, of Baltimore, who resides at the spring, says it is purgative when taken in excess, or when there is atony of the small intestine. In nine cases out of ten, he says, it should be used as a diuretic.] Dr. Greene reports a number of cases of hemorrhagic malarial fever, as it is called in the South, in which the skin became yellow, and blood was passed in urine. Quinia was given in large doses, and in conjunction with it, the iron and alum mass in doses of about 30 30 grains 3 to 4 times daily, with apparently good results, though other remedies appear to have considerably influenced the restoration to health.

Death from Chloroform. (W. P. MILLS, M.D., p. 493.) Boy, æt. 16, operation for phymosis. Ordinary prudence was exercised, and just as the operation was completed, the patient suddenly presented alarming symptoms. Artificial respiration, cold water, amyl nitrite, and electricity caused but momentary restoration of vitality, and patient died almost immediately. 3 drachms only were used, and but 1½ to 2 drachms were all that were inhaled.

The Medical and Surgical Reporter. June.

Viburnum Opulus. (C. H. HALL, p. 494.) Like *V. prunifolium*, recommended by Prof. Jenks, of Detroit, for the relief of painful menstruation [See NEW REM., V., p. 333], this plant belongs to the nat. order Caprifoliaceæ, and is known commonly as the high-cranberry. It is described in "King's American Dispensatory," and its effects in the relief of dysmenorrhœa are mentioned in "Hale's Therapeutics." Dr. Hall has used it with remarkable success, giving it three times daily for a couple of weeks before menstruation, and more often during the flow. The dose of the decoction or vinous tincture is 2 fluid ounces two or three times daily. Dr. Hall quotes a number of cases, and says that a fluid extract did not give so satisfactory results as a tincture.

The Opium Habit (S. W. GERDEL, p. 476.) During twenty years, the writer has had a considerable experience with persons addicted to the use of opium. He has observed that, contrary to the general opinion, those who are addicted to it are obliged to gradually increase the dose, and that among at least forty cases of "opium eating," there has been an astonishing immunity from disease, and especially that of an epidemic character.

Chicago Medical Journal and Examiner. June.

Arsenic in Subnitrate of Bismuth. (J. H. SALISBURG, p. 601.) 18 specimens, bought at different stores, were examined, all but two being from manufacturers known to be reputable. Arsenic was found in 13, the amount in three instances being $1\frac{1}{4}$ per cent, $2\frac{1}{10}$ per cent, and $3\frac{1}{8}$ per cent.

Five specimens of *subcarbonate* of bismuth were examined and arsenic found in all. The general impressions that the latter preparation is less likely to contain arsenic than the subnitrate would, therefore, appear to be unfounded. In the subnitrate, the arsenic exists in the form

of arseniate of bismuth. The method for purification, directed by the U. S. P., is efficient *if carefully performed.*

The amount of arsenic sometimes found was enough to render the use of the bismuth probably harmful, or to antidote its good effects.

The interesting question is raised whether in chronic gastric ulcer, and other causes of vomiting, the benefit following the use of such bismuth compounds may not be due solely to the arsenic?

Louisville Medical News. June.

Burns and Scalds. The Alkaline Treatment. Its History. (GEO. F. WATERS, p. 263.) Following an account of the circumstances which led to the discovery by him of the power of alkalies to promptly relieve the pains and inflammation of burns, he says, "My treatment is to apply to the burned surface bicarbonate of soda in fine powder if it is a wet surface; but if it is a dry burn, use a paste of bicarbonate of soda and water or a strong solution of bicarbonate of soda in water, and apply to the burned surface. This relieves sun burns, as well as burns from hot coals, melted sulphur, hot iron, steam, etc."

N.B.—Always dispose the burned surface so that the blood can gravitate toward the heart, if possible, as otherwise a continuous pain may be felt, due to the dilatation of the blood-vessels from the weight of the contained blood.

"If bicarbonate of soda is not at hand, bicarbonate of potash is the next best; biborate of soda does as well, but is not often found handy."

Two Cases of Nocturnal Incontinence of Urine Cured by Belladonna. (J. R. SIGLER, p. 267.) One, a lad of 15, and the other, a girl of 16, were relieved by tincture of belladonna in doses of 8 to 15 minims, three times daily. Recovery followed in 38 and 32 days.

The Ohio Medical Recorder. May.

Is Quinia an Uterine Stimulant? (E. A. GLEZEN, p. 546.) Has used the remedy for over 32 years, without having seen a case of abortion or premature labor produced by it; but has often seen pregnant females, while afflicted with intermittent fever, suffer from extreme backache and uterine pain, both of which were relieved by taking quinia. Believes that quinia will relieve inertia of the uterus dependent upon malarial depression, but not otherwise.

The American Medical Bi-Weekly.

A Note on Chloride of Calcium. (J. B. MARVIN.) Recommends the remedy in doses of 20 grains, three times daily, in sweetened water, milk, cod-liver oil, or malt extract, for the relief of the cough, expectoration, and loss of sleep and appetite of phthisis.

Medical Times (Philadelphia). June.

Opium Poisoning—Antagonism of Belladonna. (WM. J. WILSON, p. 410.) Three cases are reported: two in which opium poisoning was relieved by atropia, and a third of stramonium poisoning, where opium was used as an antidote.

The Boston Medical and Surgical Journal.

The Metric System in a Nutshell. (EDW. WIGGLESWORTH, p. 766.) Little is said in this article that has not already been referred to in NEW REMEDIES, but the writer has succeeded in giving it a very condensed, practical and comprehensible form.

Pharmaceutische Centralhalle.

Browallia Herb. (H. HAGER.) An inquiry from a correspondent about the constituents of *Browallia*, which herb is used in South America, in form of decoction, externally in skin diseases, particularly in tinea capitis, gives Dr. Hager the opportunity of relating some episodes from Linné's life. It was a characteristic trait of Linné never to answer any odious criticisms. A botanist, of the name of Browall, had deported himself towards Linné in the most deferential manner. As a sort of recompense, Linné named a newly discovered plant *Browallia demissa* ("the submissive [or devoted] Browallia"). Some time afterwards, when Browall had become bishop of Abo, he became very elated, and full of airs towards Linné. The latter then named a new species of Browallia, just discovered, *Browallia altata* ("the elated B."). Upon this Browall waxed wroth, and wrote a thundering philippic against Linné. Finally, a third species of Browallia having been discovered, Linné revenged himself by naming it *Browallia alienata* ("the alienated, or insane Br.").

Metadiamidobenzol as Reagent for Nitrous Acid. (PETER GRIES.) A most delicate reagent, capable of indicating one part of nitrous acid in ten million parts of water, and which does not give any reaction with other oxidizing substances, such as hydrogen peroxide,* is an acidified solution of metadiamidobenzol. This is best made by dissolving 5 grammes of the substance in one litre of water and supersaturating with dilute sulphuric acid. Even very dilute solutions of this reagent are colored *intensely yellow* by nitrous acid. The reagent is manufactured by C. A. F. Kahlbaum, of Berlin.

Zeitschrift d. Oesterreich. Apoth. Ver., Nos. 14–16.

Diphtheria from Calves transferred to Man. Damman has found that calves are frequently affected with *contagious diphtheria* which is capable of transferring itself to man; he himself and others having suffered from its attacks while treating a number of calves for this disease.

Arch. der Pharmacie. May, June.

Historical Notice on Ditain. (PROF. TH. HUSEMANN.) Gruppe, a pharmacist of Manila, first exhibited the alkaloid ditaïn, prepared from the bark of *Alstonia* (*Echites*) *scholaris*, upon the Vienna exhibition. He is, however, not the first who discovered it. Already in 1863, Scharlée published an article on the preparation of this alkaloid, which he called *alstonine* in the *Geneesk. Tijdschr. voor Neederl. Indië*, X., 209. Dita-bark is called *poelé* upon Java.

Sodium Salicylate. (E. HOFFMANN.) The author states that the preparation of a dry and *white* sodium salicylate is very difficult, as the presence of the slightest excess of alkali causes the product to acquire a gray or blackish color. In order to insure a white salt, the salicylic acid should be kept a trifle in excess. It is best to prepare it thus: 10 parts of sodium bicarbonate (free from iron) and 16½ parts of salicylic acid are mixed to a thick magma in a capacious porcelain dish, and after the escape of carbonic acid gas, at once evaporated to dryness on the water-bath. The salt effloresces and loses all its water at 100° C. The crystallized bulky salt of commerce is probably obtained by subsequent crystallization from alcohol.

Amylic Alcohol in Chloroform. (H. WERNER.) The author reports having met with commercial chloroform, which contained decided traces of amylic alcohol, recognized by yielding valerianic acid with potassium bichromate and sulphuric acid. The impurity was no doubt owing to the fact that an impure alcohol had been used in its manufacture.

Adulteration of American Oil of Peppermint. (LEONHARDI.) Reports that the American oil of peppermint, manufactured by H. G. Holtsch, Lyons, Wayne Co., N. Y., *appears* to him to be adulterated with rectified oil of sassafras. His tests, however, are somewhat vague, and do not absolutely prove this. The statement should therefore be received with caution, and we trust that the parties interested in the above will take the necessary steps for refuting the statement, if possible. It is probable, also, that *Hotchkiss* and not *Holtsch* is the producer of peppermint oil referred to.

Food Consumption in France.—Some idea of the enormous food consumption of a city like Paris will be obtained from the following figures which have lately appeared. In the year 1877, the Parisians devoured 20,000,000 kilos of fish; 2,000,000 kilos of oysters; 15,000,000 kilos of eggs, and 24,000,000 kilos of butter. The consumption of drinks was 4,000,000 hectolitres of wine; 106,000 hectolitres of pure alcohol and liqueurs; 89,000 hectolitres of ciders, and 206,000 hectolitres of beer.

* The reaction with ozone has not yet been examined.

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THE current volume of the Register is in every way equal to its predecessors, and is especially noticeable for the promptness with which it has been issued by its present editor. The labor of accurately compiling such a mass of matter from such various and scattered sources is much greater than any who have not once undertaken it can have any idea. The work is well entitled to the confidence and favorable patronage which it has achieved, and it has become an authority on certain matters, which renders it indispensable to most physicians and druggists, and all who have occasion to address the medical and pharmaceutical professions within the limits embraced.

RAPID LITHOTRITY WITH EVACUATION. By HENRY J. BIGELOW, M.D., etc. Boston: A Williams & Co.; New York: William Wood & Co. 8vo, pp. 41.

THIS handsome monograph includes the papers on this subject which Professor Bigelow has contributed to various medical journals within the current year, together with additions of fresh matter. As the method of procedure is an important advance in the surgery of calculous affections, possession of the paper becomes imperative upon all who are interested in this branch of practice, and its publication in separate form deserves much commendation.

A MANUAL OF OPERATIVE SURGERY. By LEWIS A. STIMSON, B.A. (YALE), M.D., etc. With 332 illustrations. Philadelphia: Henry C. Lea. 1878. 12mo, p. 477.

EXCEPTING the little manual by Professor Stephen Smith, published at the commencement of our civil war and particularly designed for army surgeons, there has been nothing of this nature very accessible to American surgeons, and, indeed, none so comprehensive in its scope, without it be the general text-books on surgery. The general range of topics may be enumerated as follows: 1. The Accessories of an Operation; 2. Ligature of Arteries; 3. Amputations; 4. Excision of Joints and Bones; 5. Neurotomy and Tenotomy; 6. Plastic Operations on the Face; 7. Special Operations. In the last-mentioned part is embraced: Operations on the Eye and its Appendages; on the Ear and its Appendages; on the Mouth and Pharynx; upon the Neck; upon the Thorax; upon the Abdominal Wall, Stomach, and Intestines; upon the Genito-Urinary Organs of the Male; upon the Genito-Urinary Organs of the Female, and, lastly, Operations of a Miscellaneous character. Every advantage appears to have been taken of illustration, to make the text clearly comprehensible.

We think that the author could have profitably devoted more space to the consideration of antiseptic methods of operating, and to the description of the special dressings employed; to the details of the application of immovable dressings and to the elastic bandage of Esmarch; to the production of anæsthesia and the avoidance of its dangers; to the apparatus for aspirating the contents of cavities; to the mechanical treatment of aneurism; to the surgical employment of galvanism; the elastic legature of Dittel, etc.

While much of the matter contained in the work can be found in various text-books, and the balance has been mainly culled from journals, there still remains a very considerable field indicated in the above partial list (which is made from a hasty review only), about which information is now much needed by the general practitioner, but concerning which little or nothing has here been said, and for which the recent files of various medical journals must still be consulted.

A TEXT BOOK OF ELECTRO-THERAPEUTICS AND ELECTRO-SURGERY, for the Use of Students and General Practitioners. By JOHN BUTLER, M.D., etc. New York and Philadelphia: Boericke & Tafel, 1878. 8vo, pp. 73.

THIS work is by the lecturer on Electro-Therapeutics in the New York Homœopathic Medical College, and is not intended as an exhaustive treatise, but as an endeavor to place the subject before the student and practitioner from a homœopathic standpoint. The author claims to have purposely omitted all uncertainties, and to have dealt only with facts. We quote his own language regarding the divisions and scope of the treatise, as follows:

"The first part is devoted more particularly to the symptoms produced on the healthy organism by the different forms of electric current. The second part, to therapeutical indications for their use, illustrated by suitable cases, selected, as far as possible, from the works of others, preferring to prove the homœopathic relation of electricity to disease from the lips of other witnesses, rather than by a report of my own cases. As the cases quoted were recorded before the theory laid down in this work was written, it is impossible that they could have been trimmed to suit it. The third part gives general directions for conducting ordinary electrical treatment, and a description for the more common forms of electrodes. The indications for the use of electricity in obstetrics take up the fourth part; electro-diagnosis the fifth. In part sixth is discussed the various uses of the electric current in surgery, illustrated by my own cases (having here no new theory to support)." Part seven is purposely a mere outline of electro-physics, and statical magneto-electricity has been similarly passed by.

Few works on this subject that have come to our notice have been written as clearly or with less apparent bias; and the reader will find a great deal of practical information that will pay him for the outlay required for the book and the time consumed in becoming familiar with its contents.

NERVOUS DISEASES: Their Description and Treatment. By ALLAN MCLANE HAMILTON, M.D., etc. With 53 Illustrations. Philadelphia: Henry C. Lea. 1878, 8vo, pp. 512.

LESS voluminous than the following, but wider in its scope is the recently published work of Dr. A. McL. Hamilton, of New York City. The reader will find that a good degree of attention has been paid to the lucid description of the various affections of the nervous system (excepting insanity and idiocy); that recent advances in their pathology and therapeutics have been noted; that an abundance of formulas have been furnished upon which to model prescriptions in individual cases; that the text is well illustrated, the index comprehensive, and the general appearance of the work like that of the publications of the well-known Philadelphia house. A more critical review is not possible within our limit of space.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by Dr. H. von Ziemssen. Vol. XIII. DISEASES OF THE SPINAL CORD AND MEDULLA OBLONGATA. By PROF. WILHELM HEINRICH ERB, of Heidelberg, Baden. Translated by Edward G. Geoghegan, M.D., of London; Edward W. Schauffler, M.D., of Kansas City; David L. Lincoln, M.D., of Boston; and John A. McCreery, M.D., of New York. Albert H. Buck, M.D., of New York, Editor of American Edition. New York: William Wood & Co., 27 Great Jones Street. 1878, Roy. 8vo, pp. 975.

THIS is the fourth (in the order of publication) of the volumes of this series, devoted exclusively to affections of the nervous system, viz.: the XI., XII., XIII., and XIV., and is the work of the same writer who supplied the material for volume XI., viz.: Professor Erb, of Heidelberg. The author declares his appreciation of the difficulty which attends the composition of a work on this topic in the midst of the crowding rapidity of the growth of knowledge regarding the diseases of the spinal cord.

but claims to have written for the practising physician, who encounters the actual diseases from day to day. He considers, therefore, that the clinical point of view is the most important one in which to consider the subject at the present time, and says, finally, that it seems "not undesirable" to describe the general treatment, especially as regards electro-therapeutics and balneo-therapeutics—very important branches which, at the present time, have hardly received a connected scientific treatment.

We hope that the references to balneo-therapy and the effects of climate, in the absence of any editorial effort to adapt the work to the requirements of American physicians, will stimulate a desire on the part of the latter to familiarize themselves with the resources of this continent.

EROS; OR, MISS BARBARA'S ESCAPE. Carleton & Co., New York. 1878.

THIS is just the sort of a story to amuse one's self with for an hour, and gains in interest when it is recognized as being one of the brightest ideas in an advertising way that has yet appeared. The cleverness of the plot, the way in which the interest of the story is sustained, and the *denouement*, to say nothing of the implied moral, ought to make it succeed, and probably will. Being what we may call a "Soda Water Novel," it specially appeals to the sympathies of the drug clerk.

To increase the interest, a prize of $20 in gold is offered to the person who will point out, in fiction, a device substantially similar to that on which the turning point of the story depends.

TRANSACTIONS OF THE AMERICAN GYNÆCOLOGICAL SOCIETY. Volume 2. For the year 1877. Boston: Houghton, Osgod & Co., 1878. 8vo, pp. 697.

THIS second volume of transactions of the society is by many pages larger than its predecessor, without abating, to any appreciable degree, in quality of matter. It is the exceptional value of the contents which makes us regret that its publication has been delayed. In this volume, besides the usual detailed proceedings and original papers, the editor—Dr. James R. Chadwick, of Boston—with the co-operation of Surgeon Billings, of the National Medical Library, has given us an invaluable index to the gynæcological and obstetric literature of all countries, from July 1st, 1876, to January 1st, 1877, to be continued in subsequent volumes. Besides the address of the president, Dr. Fordyce Barker, are twenty-seven papers on a variety of subjects, many of them illustrated with heliographic plates and woodcuts. The price per volume is $5.00.

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THIS work will form the most complete and best-written handbook on medical and pharmaceutical botany with which we are acquainted. While it gives a survey of all the natural families at present established, it devotes particular attention to the medicinal plants, and is embellished by excellent cuts, from the author's own drawings. We can do no better than to urge each of our friends who can read German to order a copy of this work.

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NUMBER 5 of this series, just published, contains pp. 27–33 of text, and plates XVI. (Endothelial Cells in Hydrothorax ×750), XVII. (Chronic Pleurisy with Adhesions, ×750), and XVIII. (Vertical Section of the Pleura. Tubercular Pleurisy, ×90).

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Gunther (K. F.). Vollständige Worterklärung und lateinisches Specialwörterbuch zur Pharmacopoea Germanica in 8 Numbers. 8vo. Leipzig. Each 0.75 Mark.

A New Cheap and Self-generating Disinfectant.—Under this title, Dr. John Day, of Geelong, Australia, recommends for use in civil and military hospitals, and also for the purpose of destroying the poison-germs of infectious diseases, a disinfectant composed of one part of rectified oil of turpentine and seven parts of benzine, with the addition of five drops of oil of verbena to each ounce. Its purifying and disinfecting properties are due to the power presumed to be possessed by each of its ingredients, of absorbing atmospheric oxygen, and converting it into either peroxide of hydrogen, or ozone. Articles of clothing, furniture, wall-paper, carpeting, books, newspapers, letters, etc., may be perfectly saturated with it without receiving the slightest injury, and when it has been once freely applied to any rough or porous surface, its action will be persistent for an almost indefinite period. This may, at any time, be readily shown by pouring a few drops of a solution of iodide of potassium over the material which has been disinfected, when the peroxide of hydrogen, which is being continually generated within it, will quickly liberate the iodine from its combination with the potassium, and give rise to dark-brown stains. It may be applied with a brush or a sponge, or, if more convenient, as is the case with certain articles, such as books, newspapers, and letters, it may be simply poured over them until they are well soaked; they may then be allowed to dry, either in a warm room or in the open air.

Cantharides.—Twelve tons of Spanish flies have been shipped in a single year from the island of Sicily.

Shampoo-fluid.—Boil ¼ lb. soap-wax in 6 to 8 pints of water; when cool, add 2 oz. sal-ammoniac and 3 oz. best potash. Dilute with 1½ to 2 pints of water, and perfume with a few drops of some essential oil on a lump of sugar.

ANALYSES OF PHARMACEUTICAL CHEMICALS AND PREPARATIONS.

We are now prepared to send samples for the August prize to such as may desire to compete for it. Answers must be received before the 20th of July, and be accompanied by a sealed envelope containing the name of the writer, and designated by a device or motto, which is also to be placed, instead of the writer's name, upon the report of the analysis.

Persons to whom a prize has been awarded are requested to send to the publishers the title of any book or books they may desire, not exceeding in the aggregate the value of $10.00.

The prize this month has been awarded to CHARLES W. DREW, *of Brooklyn.*

THE July sample contained 75 per cent of commercial tannic acid ($C_{34}H_{28}O_{22}$, H. Schiff), and 25 per cent of pure gallic acid ($C_7H_6O_5$).

The tannic acid was of German manufacture, and answered the tests of the German pharmacopœia, although it contained considerable coloring matter. It differed from tannic acid made by the U. S. P., in being darker colored, and in fine powder, not in scales.

Let us first study the characteristics and reactions for each acid, next some methods of separation.

I. TANNIC ACID.

Tannic acid, or tannin, is a name applied to a large number of organic acids, which agree in being freely soluble in water and alcohol, moderately soluble in commercial and water-washed ether, much less in absolute ether, moderately in glycerin, fixed and volatile oils. Precipitated unchanged from concentrated water solutions by most mineral acids, not precipitated by most organic acids. They also agree in having an astringent taste, an acid effect upon litmus, and in precipitating albumen and gelatin. They give either blue-black or green precipitates with ferric salts. Tannins have been divided by R. Wagner into two great classes, the physiological and the pathological; some of the characteristics of each class will be enumerated.

A. *Physiological Tannins.*

1. Formed in living healthy tissues.
2. Not glucosides (except tannin of willow), *i. e.*, do not change into glucose and other products when boiled with dilute mineral acids.
3. With gelatin form true leather, which does not putrefy.
4. With ferric salts give *green* precipitates.
5. Heated, yield pyrocatechin (oxyphenic acid, $C_6H_6O_2$).
6. Sources and formulæ various.

B. *Pathological Tannins.*

1. Formed in diseased vegetable tissues (exception, tannin of sumach).
2. Glucosides.
3. Do not form leather with gelatin, although they are precipitated by gelatin.
4. With ferric salts give *blue-black* precipitates.
5. Heated, yield pyrogallic acid (dioxyphenic acid, $C_6H_6O_3$).
6. Sources: Aleppo galls, from Quercus infectoria, Chinese galls, probably from Rhus semi-alata, and sumach, Rhus coriaria. Formulæ, according to Hugo Schiff, are for "natural tannin," or commercial tannic acid ($C_{34}H_{28}O_{22}$), and for pure tannic acid ("digallic acid," $C_{14}H_{10}O_9$). "Natural tannin" he shows to be a glucoside of pure tannic acid. Thus by boiling natural tannin with dilute mineral acids it splits into "digallic" acid and glucose ($C_6H_{12}O_6$).

$$C_{34}H_{28}O_{22}+2H_2O=2C_{14}H_{10}O_9+C_6H_{12}O_6.$$

Pure tannic acid, on the contrary, forms no glucose when treated in the same manner, but changes entirely into gallic acid ($C_7H_6O_5$).

$$C_{14}H_{10}O_9+H_2O=2C_7H_6O_5.$$

Hence, "natural tannin" is a glucoside, and pure tannic acid is not. See *Jour. Ch. Soc.*, XII., p. 270.

This month's sample being a mixture of impure natural tannin of the second, "pathological," variety, with gallic acid, only those reactions will be given which apply to the pathological tannins and to gallic acid. It will be understood also that these are reactions for "natural tannin," although most of them are given by pure tannic acid.

Reagent.	*Natural Tannin.*	*Gallic Acid.*
1. Gelatin, albumen, and starch-paste.	Prec.	No prec.
2. Potassic cupric tartrate.	Reduced.	Not reduced.
3. Potassic permanganate.	Reduced.	Reduced.
4. Silver and gold salts.	Reduced.	Reduced.
5. Potassic antimonic tartrate.	Prec. insol. in NH_4Cl.	Prec. sol. in NH_4Cl.
6. Cupric acetate.	Prec. insol. in $(NH_4)_2CO_3$	Prec. sol. in $(NH_4)_2CO_3$.
7. Cinchonia sulphate.	Prec.	No prec.
8. Alkaloidal salts.	Prec. sol. in $HC_2H_3O_2$.	No Prec.
9. Ferric salts.	Blue-black prec.	Green color.
10. Ferrous salts.	Blue color.	Blue color.
11. Lime-water.	Becomes green.	Blue-purplish.
12. Fixed alkalies (excess).	Brown sol.	Brown sol.
13. Fixed alkalies (dilute).*	Brown sol.	Green sol.

To about one grain of the dry sample, in a watch-glass, add a little water, and one drop of potassic or sodic hydrate. Let stand, without stirring. In a few minutes the green color will appear if gallic acid is present. With tannic acid a brownish color, and with pyrogallic acid a purple color is produced. A large proportion of either tannic or pyrogallic acids masks the green color due to gallic acid, hence it is best to separate the acids before applying it.

One of the contestants ("Romulo") states that crystals of gallic acid moistened with ammonia become colored light red, then green; if now they are treated with ferric chloride "a most beautiful purple coloration is produced." This reaction he thinks "to be quite characteristic of gallic acid." [In absence of *salicylic* or traces of *carbolic* acids.—ED.]

The above are a few of the more commonly used reactions by means of which tannic and gallic acids may be distinguished. Many others may be found in various textbooks and magazines, but want of space forbids their mention here.

II. GALLIC ACID.

It differs from tannic acid in being much less soluble in water; its solubility being stated as in 3 parts of boiling water, and 100 of cold water. Parrish says, about 4 grains to the fluid-ounce of cold water.

For other solubilities of gallic acid consult the Dispensatory, Parrish's Pharmacy, Attfield, Prescott, etc. Gallic acid is not a glucoside. Nitric acid, if hot and strong, changes it to CO_2 and H_2O. If more dilute, some oxalic acid ($H_2C_2O_4$) is formed. Heated moderately in a closed tube, a crystalline sublimate of pyrogallic acid is formed. This pyrogallic acid is freely soluble in water (distinction from gallic acid) and is, probably, the most energetic reducing agent known. It gives very distinctive reactions.

*"Proctor's Test." Proctor recommends a "faintly alkaline solution of sodic arseniate." Prof. Flückiger states that *very dilute* fixed alkali alone gives the same reaction.

The formation of pyrogallic acid ($C_6H_6O_3$) from gallic acid ($C_7H_6O_5$) is explained by this equation :—

$$C_7H_6O_5 \text{ heated} = C_6H_6O_3 + CO_2$$

Pyrogallic acid is one of the products when tannic acid is heated. The reaction is more complicated, and not so certainly known.

It will be noticed that gallic acid is a weaker reducing agent than tannic acid, and that it does not precipitate gelatin, albumen, starch paste, soluble salts of alkaloids, "tartar emetic" in presence of ammonic chloride, copper acetate in presence of ammonic carbonate, etc. Upon these facts are based the best methods of separation.

III. SEPARATION AND ASSAY.

(a) *By water.* If the two acids are present in about equal amounts, treat a weighed portion with ten to fifteen or twenty times its weight of cold water. Allow to stand several hours, filter. This residue is nearly pure gallic acid. This is only an approximate separation, and results may vary ten to twenty per cent.

(b) *By cinchonia sulphate* [$(C_{20}H_{24}N_2O)_2H_2SO_4$].

Dissolve cinchonia sulphate (pure crystallized) in water with one or two drops of sulphuric acid. This solution will precipitate tannic acid, not gallic acid.

The student may standardize this solution by means of pure tannic acid, so that each cubic centimetre may represent a given amount of tannic acid. By means of a graduated burette he may then quickly determine the percentage of tannic acid in a mixture like the one given. A very good process, recommended by Clark (*Am. Jour. Phar.*, Aug., 1876), is to run into the tannic acid solution an excess of cinchonia sulphate, and then estimate this excess by volumetric solution of potassic mercuric iodide ("Mayer's Solution"). By thus manipulating the "end reaction" may be more closely determined. For details see the original paper on the "Determination of Tannin in Tea."

(c) *By gelatin.* A moderately dilute water solution of gelatin precipitates tannic acid, not gallic. The gelatin solution may be standardized so each cubic centimetre shall represent a given weight of pure tannic acid. The "end reaction" is known by failure of the gelatin solution to produce any more precipitate.

(d) *By potassic antimonic tartrate* ($KSbOC_4H_4O_6$).

To the solution containing the mixed acids add considerable solution of ammonic chloride, and then add the tartar emetic in water solution. The tannic acid will be precipitated, and the solution will still contain the gallic acid with excess of tartar emetic. Wash the precipitate well with cold water, and add these washings to the filtrate. Suspend the precipitate in pure water and pass hydrosulphuric acid gas (H_2S) through it. The antimonious sulphide (Sb_2S_3) may now be removed by filtration. This filtrate will contain hydrosulphuric (H_2S), tartaric ($H_2C_4H_4O_6$), and tannic ($C_{14}H_{10}O_9$) acids. Evaporation on the water-bath will expel the H_2S, and the usual tests may be applied to a water solution of the residue for tannic acid.

The first filtrate may be treated in the same manner with H_2S gas, the Sb_2S_3 filtered out, the filtrate concentrated, and tested for gallic acid. This is a very satisfactory separation of the two acids. A volumetric determination of tannic acid is based upon this method.

(e) *By cupric acetate.* $Cu(C_2H_3O_2)_2$.

By using cupric acetate, slightly acidified with acetic acid, the tannic and gallic acids will both be precipitated. The copper gallate may be separated from the copper tannate by treatment with ammonic carbonate solution. The precipitate remaining, and the ammonic carbonate solution may be treated with H_2S gas, the CuS filtered out, and the tannic and gallic acids identified in the filtrates, after expulsion of H_2S, by the usual reagents. This method is not well adapted for volumetric work, owing to the variable composition of the copper acetate.

These methods, it will be seen, have been taken from "Prescott's Proximate Organic Analysis;" methods (d) and (c) are probably as satisfactory as any, although the others are good.

The next sample is *inorganic* and pharmacopœial. It was bought of a retail pharmacist for "Commercial Zinc Oxide." Some experiments, made by the writer, led him to doubt its purity, and he now submits it to the contestants for analysis.

We hope that many more students may commence analysis. We will be very glad to help beginners, if they will send in their questions before the twentieth of each month. The prize for the best analysis has been awarded to "SHIRLEY."

NOTES, QUERIES AND ANSWERS.

[*Under this heading we shall, to the best of our ability, endeavor to answer such questions addressed to us as come within the scope of this journal, provided they are accompanied by the name and address of the writer. Answers to queries received after the 5th of the month will lie over until the next issue.*]

No. 396.—**Arsenite of Gold** (G. S. R., Luzerne Co., Pa.).

This correspondent asks if, by adding 10 grains of chloride of gold and sodium and 1 ounce of hydrochlorate of ammonium to 1 pint of water, and then adding 3 drops of Fowler's solution, the effect of the product, in ½ to 1 ounce doses, would be that of arsenite of gold.

He also requests a better formula if it is obtainable.

W. M., of Webster, Ohio, also wishes to know the dose and mode of administration of this substance as used for phthisis, lupus, etc. He wishes also to know where it can be obtained, and the cost.—

Arsenite of gold is not quoted by any dealer, and is not to be had in the market, so far as we have yet been able to discover. Of its therapeutical value in the diseases referred to, we have no reliable information. Arsenic, by itself, has been reported to be of considerable value in these diseases, and metallic gold has, for a number of years, been employed by homœopathic practitioners as an alterative in syphilis—especially in the tertiary stage, and in suicidal melancholy, especially when accompanying disease of the testes. It has also been used in syphilitic, strumous, and mercurial ozæna.

True arsenite of gold has the composition $AuAsO_3$. Its preparation in a solid form, which might be done by precipitating a neutral solution of chloride of gold and sodium with an excess of a solution of arsenite of sodium or potassium, and supersaturating with ammonia, would hardly be of use, as the precipitate would have to be largely diluted with sugar of milk or other indifferent substances, to make an accurate weighing of the small doses required possible. The effects of an arsenite of gold are no doubt produced equally well by dissolving say 10 grains of chloride of gold in ¾ fl. oz. of water, then adding 349 minims of Fowler's solution, and making up the bulk to 758 minims. The commercial chloride of gold has an acid reaction, and this excess of acid keeps the arsenite of gold formed in solution. Chloride of gold has the composition $AuCl_3,HCl,4H_2O$ (NEW REM., 1877, 363). 10 grains of it, therefore, contain nearly 4.67 grains of metallic gold. The quantity of arsenious acid necessary to convert this into arsenite of gold, $AuAsO_3$, is 2.91 grains (nearly). This amount is represented by about 349 minims of Fowler's solution. The above solution should be labelled:

Solutio Auri et Arsenici fortior.

100 minims of it contain 1 grain of arsenite of gold. *Each minim contains about* $\frac{1}{100}$ *grain of arsenite of gold.* *N. B.* This should *never* be dispensed as such, but should only be kept as a stock to dispense from. It should be diluted with the necessary quantity of water to form the intended dose before it reaches the patient.

No. 397.—**Penthorum Sedoides L.** (J. B.).

This is an upright weed-like perennial, with scattered

lanceolate leaves, acute at both ends, with yellowish-green flowers loosely spiked along the upper side of the naked branches of the cyme. Parts of the flower 5; rarely 6 or 7. It occurs everywhere in open wet places, and flowers in July to October. The name is not derived, as Asa Gray has it, from *πέντε, five* and *ὅρος*, a rule or mode, for in this case the compound would not have the aspirate *ὁ*; but from *πέντε, five*, and *ὅρος, limit* or *margin*, referring to the five-angled pod into which the pistils are formed below.

No. 398.—**Leube's Meat Solution** (W. G. W. Shelbyville, Ill., and A. R. S., Green Bay, Mich.).

You will find an answer to your queries on page 250 of Vol. V. of NEW REMEDIES.

No. 399.—**Eccoprotic Mixture** (S. H. A., New York).

The meaning of ec-coprotic is "evacuating" from *ἐκ* (*ἐξ*) prepos., and *κόπρος*, excrement, fæces. The exact equivalent would be "defecating." There used to be a special mixture known by that name, but it is no longer prescribed as such.

No. 400.—**Causticum Zinci Supersulphurici** (Dr. A. L. M.).

This is a caustic recommended by Prof. J. Y. Simpson, and prepared by saturating say ½ fl. oz. of strong sulphuric acid with sulphate of zinc, previously dehydrated and powdered. A pen is to be dipped into this paste, and lines drawn across the spot to be cauterized, whereupon the skin will be eaten through in a few minutes.

No. 401.—**Colloid Form of Dialyzed Iron** (Ohio).

"Is it the nature of dialyzed iron to become thick and viscid? I got a bottle of a wholesale house here, of a Philadelphia manufacturer's make, which has got so thick by standing a short time that it will not run out of the bottle. How can I get it back into a fluid state?"

Dialyzed iron is quite a delicate substance, so far as its fluidity is concerned. It is, as you well know, a solution of ferric oxide in a very small quantity of a ferric salt, generally ferric chloride, and it requires but little impetus to cause the ferric oxide to separate in its more usual form, namely as an insoluble substance. The addition to dialyzed iron of certain acids, insufficient to at once dissolve the ferric oxide, but more especially the addition of saline bodies, even in very small quantity, brings about the change. This manifests itself by the solution gelatinizing, that is, the molecules of ferric oxide are, while newly formed, so scattered through the bulk of the mixture that they envelop the liquid and form a jelly, which persists until the solid molecules aggregate to large masses, and finally sink to the bottom as a dense precipitate, leaving the liquid above free from the excess of ferric oxide.

There is no other way to restore fluidity in gelatinized dialyzed iron than to redissolve the whole by means of hydrochloric acid, and to dialyze it over again.

No. 402.—**Tinctura Guaiaci Ætherea** (V. G.).

Take of Resin of guaiac, 3 troy ounces; Spirits of nitrous ether, q. s. Treat the resin with the spirit until one pint of tincture is obtained.

This preparation unites the well established stimulating and diaphoretic properties of guaiac, which are found so useful in rheumatism, sciatica, etc., especially of aged people, with a diuretic effect, very useful in dysmenorrhœa, amenorrhœa, and other uterine affections.

No. 403.—**Hall's Vegetable Sicilian Hair Renewer** (B. F. H., Texas).

Made by R. P. Hall & Co., of Nashua, N. H., is a turbid fluid which contains, according to Prof. Chas. F. Chandler, 1.4 per cent of lead.

No. 404.—**Ayer's Hair Vigor** (*ibid.*).—Made by J. C. Ayer & Co., Lowell, Mass. According to Prof. Chandler, a solution of acetate of lead, containing about 0.6 per cent of the latter salt.

No. 405.—**Tarrant's Seltzer Aperient** contains, according to Wm. Schrage: magnesium sulphate, sodium bicarbonate, potassium bicarbonate, tartaric acid, and sugar.

No. 406.—**Carbon Disulphide** (E. O., New York, N. Y.).

"What is the source of carbon disulphide?"

The source is *carbon* and *sulphur*. An iron or clay retort standing in a suitable furnace is charged with pieces of charcoal, and when heated to a dull red heat, sulphur in lumps is introduced through an opening, which causes the sulphur to fall to the bottom. The high heat volatilizes the sulphur, the vapors of the latter traverse the red-hot coal, and the consequence is the formation of carbon disulphide CS_2, the vapor of which is led through a well-cooled condenser to a receiving vessel. The product, which contains an excess of sulphur in solution, is rectified by distillation, and, if necessary, dehydrated by digesting with fused calcium chloride.

No. 407.—**Tobacco Coloring.** ("Virginia.")

We have had a number of communications from others besides yourself, asking for the nature of the fluid sold for the purpose of darkening the color of tobacco leaf. We have as yet seen no sample, but have made some inquiry among tobacco men, and have reason to think that the dye most commonly employed is a fluid extract of the stems and refuse portions of tobacco leaf, made by percolation, and not the preparation of catechu referred to by you and mentioned in the *Druggists' Circular's* answer to a similar query.

No. 408.—**Oil of Neroli Petale and Bigarde** (D. S., Philadelphia, Pa.).

Our correspondent asks for an explanation of the meaning of the terms pétale and bigarde, following the references to oil of neroli in the prices current.

The first refers to the oil derived from distillation of the orange flowers; the latter is the oil derived from the rind of the fruits by the *écuelle* method, described and illustrated on page 104 of this volume of NEW REMEDIES (April).

NOVELTIES.

PERSONS *having* NEW *inventions, processes, and novelties which they may wish to bring to the notice of readers of* NEW REMEDIES, *can do so through this column by forwarding* (*when it is possible to do so*) *a sample to the* EDITOR, *accompanied with a suitable illustration, when one is needed to give an adequate idea of the thing described. If it is desired, cuts will be made at the expense of the person furnishing the sample.*

It will be understood that such notices are to be gratuitous; based solely on the merits of the articles submitted, and published as matters of general interest to the readers of the Journal.

All samples and communications must be received before the fifth of the month.

Schleicher & Schuell's Chemically Pure Filtering Paper.

THE genuine Swedish filtering paper of Muncktell being frequently unobtainable in the market, and being sold at exorbitant prices, if to be had at all, several firms have begun to devote special attention to the manufacture of a perfectly pure paper, fit for analysis, and as free as possible from mineral matters. One of the best of these is that made by Schleicher & Schüll, of Düren, Germany. It may be obtained in full sheets by the quire or ream, as well as in six sizes of round filters, from Messrs. McKesson & Robbins, of New York.

Hoyt's New Floral Cologne.

THIS very fragrant perfume, bearing the trade-mark "By W. A. Hoyt & Co., Perfumers, Boston, Mass.," must not be confounded with the article manufactured by E. W. Hoyt & Co., of Lowell, Mass.

A sample which has reached us has a number of features worthy of favorable notice: Its fragrance is delightful, and the style in which it is put up is novel, artistic, and pleasing. The long bottle has a flat side calculated to prevent its rolling from a dressing-case when laid horizontally, or from the bed or lap when in use by an invalid. The label on the body of the bottle is attractive, and the spiral label which encircles the neck gives a handsome finish to what is commonly an awkward feature.

The price at which this cologne is to be sold is not mentioned in connection with our sample of it, but it cannot fail to be salable when either its intrinsic excellence or the attractive appearance presented by its packages are considered.

Lundborg's Fascination Perfume.

THE novel handkerchief perfume of the season is that above named, and offered to the trade by Young, Ladd & Coffin, of New York, at $6 per dozen 1 oz. glass-stoppered vials. The distinguishing features claimed for it are delicacy, sweetness, and permanency. It is well adapted to be a favorite with many who use a perfume, but who find it no easy matter to suit their taste in odors.

Cinchonia Mixture.

WE have received from Powers & Weightman, of Philadelphia, a box containing a quantity of a mixture of the base cinchonia, 12 parts, with sugar of milk, 60 parts, and bicarbonate of soda, 1 part, as mentioned on page 168 of our last number. The fact that the bitter taste is thus completely covered is indisputable, and since the anti-malarial power of the cinchonia is already established, this preparation offers most valuable means for its administration in many cases, which will at once occur to the mind of a physician.

Thermaline.

THIS is the name of a quinia substitute just put into the market by Dundas Dick & Co., of New York, and claimed by them to be superior to quinia for chills and fever, all malarial affections, and a considerable number of other troubles, which assertion is, as yet, quite unsupported by any reliable medical evidence. The shape in which the remedy is presented reminds one of a sugar-coated squash seed, and is, so far as we are aware, quite novel. The label states the composition to be "a combination of the extracted alkaloids of Calisaya bark with Eucalyptus." About twenty-five are in a box, retailing for 25 cents.

F. E. Stewart's Wine of Iron.

WE have before this had occasion to mention the handsome preparations made by Messrs. F. E. Stewart & Co., of 36 Vesey St., New York. Among the latest is a wine of iron made by a combination of dialyzed iron with a good quality of Malaga wine. Although Dr. Anstie, some time ago, questioned whether, in the older preparations of wine of iron, the wine was not the only active ingredient, there can be little doubt that a combination like the above mentioned will prove valuable, provided it does not undergo changes by keeping, which cause a deposit of the iron. The proportion of ferric oxide to the tablespoonful is not known. The taste of the preparation is vinous, and entirely free from that of a styptic or inky character.

Parker's Paper-Fibre Lint.

ON page 110 of our April number, we quoted quite fully from a recent article by Dr. W. W. Keen, on the properties of this new addition to the surgeon's armamentarium. Messrs. John Wyeth & Brother, of Philadelphia, who are the sole general agents for its sale, have kindly sent us a sample, which verifies all the statements made regarding it by Dr. Keen, and promises to be of great value for all purposes to which lint of linen or cotton has heretofore been put. Owing to the purity, softness, and uniformity of the tissue and its hygroscopic qualities, it seems to us that it will also serve a good purpose in pharmacy, as a means for making paper-pulp through which to filter elixirs and like fluid preparations.

PRESCRIPTIONS AND FORMULÆ.

Elixir of Cinchona and Iron.

CINCHONA bark contains a certain amount of tannic acid, which causes the finished elixir to assume a more or less inky appearance with different iron-salts. Those salts which contain a mineral acid, as ferric chloride, sulphate, and nitrate, produce a much darker tint than those which contain an organic acid, as citric and tartaric, or where one of the latter acids helps to keep the iron-salt in solution, as in the case of the pyrophosphate. The development of this black color has induced pharmacists to seek for a method of removing the tannin from the cinchona.

Before explaining this method, we wish to state that it is therapeutically very questionable whether anything is gained by the removal of the tannin, and the more handsome appearance of the mixture. Further, it is not unlikely that the removal of the tannin by the iron process also removes a small portion of the alkaloids.

There are two chief methods for getting rid of the tannin. The first consists in taking the tannin out of a tincture or infusion of cinchona. The second consists in taking out of cinchona bark all the useful constituents, except the tannin, which is left behind.

A. To detannate Cinchona Extracts.—Percolate any desired quantity of cinchona bark with dilute alcohol, until exhausted, obtaining for every pound of bark about 8 pints of tincture. Prepare some fresh hydrated ferric oxide, by precipitating the solution of persulphate (or perchloride) of iron with ammonia. For this purpose about ½ lb. of the iron-solution is required for every pound of bark. The still moist precipitate of ferric oxide is mixed with the tincture and well shaken with it, frequently during three or four days. Whenever a small filtered portion no longer gives a reaction with tincture of iron, the whole is filtered, made to measure a certain bulk, bearing a known relation to the amount of bark originally taken, and a corresponding amount of this tincture used—in place of so much bark—whenever an elixir of cinchona and iron is to be made.

B. To prepare an Extract of Cinchona free from Tannin.—This consists simply in precipitating the total alkaloids contained in the bark, separating them from the mother liquid, and redissolving them in the proper menstruum. This is, undoubtedly, the most rational method, and by far preferable to the former. The precipitate can scarcely be called an "extract" in its ordinary pharmaceutical meaning; but it is an *extract* nevertheless. The following two methods are recommended:

a) *The Process of the U. S. Pharm. for the Preparation of Quinia:*—Boil 48 parts of cinchona bark, in powder, with 195 parts of water and 1¼ parts of muriatic acid, and strain through muslin. Boil the remainder twice successively with the same quantity of water and acid as before, and strain. Mix the decoctions, and while the liquid is still hot, gradually add 5 parts of lime, previously mixed with 2 parts of water, stirring constantly, until the quinia is completely precipitated. Wash the precipitate with water, press, dry, and powder it. Then digest it with boiling alcohol. Pour off the liquid, and repeat the digestion several times until the alcohol is no longer rendered bitter. Mix the liquids, and distil off the alcohol, until a brown viscid mass remains. This is the crude alkaloid. In the case of yellow bark, it will consist of quinia, with perhaps a trace of cinchonia; in the case of red bark, it will consist of quinia and cinchonidia.

b) *The Chloroform Process.*—This is the easiest and simplest. Mix 8 parts of powdered cinchona bark with a thick milk of lime, made from 1 part of caustic lime, and dry the mixture, under stirring, on a water-bath. Then transfer it to a percolator which can be securely covered, pack it tightly, and pour chloroform on top. Collect the chloroformic solution until a drop or two of it ceases to

leave a decided film on evaporation from a watch-glass. This exhaustion need not be carried too far, for the gain in alkaloids towards the end is too insignificant. As a rule, it may be said that 1 pound of bark is tolerably well exhausted in the first 2 pints of chloroformic percolate. Then recover the chloroform by distillation; remove the residue from the flask either by dissolving it with the aid of acids or in other menstrua. For the purpose of making elixirs, it is best to use dilute alcohol as a solvent in conjunction with citric acid.

Elixir of Cinchona from Alkaloids.—

Quinia sulphate	8 grains.
Cinchonia sulphate	32 "
Cinchonidia sulphate	16 "
Citric acid	10 "
Alcohol, 95 per cent.	2 fl. oz.
Water, boiling	2 fl. oz.
Simple elixir	12 fl. oz.

Dissolve the citric acid in 2 drachms of the water, to which add the alcohol, and to this solution add the quinia, cinchonia, and cinchonidia, and then add the remainder of the water, which must be hot. Finally, add the elixir. If desired, this may be colored with tincture of cudbear and caramel.

Tincture of Cudbear is prepared from

Cudbear	1 ounce.
Water	8 ounces.
Alcohol, 95 per cent.	2 ounces.

Let stand a few days, when it will be ready for use.

Emulsion of Cod-Liver Oil with Lactophosphate of Calcium.—

℞ Ol. morrhuæ	fl. ʒ iv.
Pulv. sacchari albi,	
" acaciæ	āā ʒ ss.
Ol. gaultheriæ	gtt. xxvi.
" menth. piper.	gtt. vi.
Aquæ distill.	fl. ʒ iv.

Misce; fiat emulsio, cui adde

Syr. calcii lactophosphat.	f. ʒ ii.

—L. von Cotzhausen in *Am. Journ. Pharm.*, 1878, 288.

Creasote Wine (Dr. Fournier).—

℞ Creasoti veri	6 grammes.
Alcoholis	125 "
Syrupi	400 "
Vini Malaccensis	q. s. ad 1 litre.

Gurjun-Emulsion (Vidal).—

℞ Balsami Gurjunensis,	
Pulv. acaciæ	āā 4 gm.
Infus. anisi stellati	40 gm.

Take in 2 doses before eating.

If it should cause nausea, take a small glass of wine.

Cement for Glass.—Dissolve 1 part of caoutchouc in 60 parts of chloroform; add 34 parts of mastic, and digest the whole for 8 days with a gentle heat. It is applied by means of a brush. This cement is particularly distinguished by its great transparency.

English Patent-Leather Varnish.—

Ivory-black	6 parts.
Molasses	2 "
Rape-oil	1 part.
Sulphate of iron	1 "
Water	8 parts.
Hydrochloric acid, comm.	1 part.
Sulphuric acid, comm.	1 part.

Etching, Engraving, or Writing upon Glass by Electricity.—

Cover the glass with a layer of solution of potassium nitrate, place into this a platinum wire connected with one of the poles of a battery. Then draw upon the glass, with the other electrode, which is also a platinum wire, the desired figures, letters or design. A plain mark will be left wherever the point of the electrode has been applied. Either electrode will answer; but the negative pole requires a less powerful battery than the other.

Diarrhœa Mixture.—The following formula is original with Dr. William Gould, of Buffalo, N. Y., where it has proved so efficacious and popular that it is kept in stock by a number of pharmacists:

℞ Tinct. rhei comp	i.
Tinct. opii	ss.
Tinct. camphoræ	ʒ ij.
Aq. ammoniæ	ʒ i.
Ol. menth. pip	ʒ ss.

Sig. A teaspoonful in hot sweetened water. Repeat as often as necessary, till relieved.

Soda Mint.—

℞ Sodii bicarb	partes 2
Aquæ menth. piper.	" 32
Spts. ammon. arom.	" 1

M. Dose: A teaspoonful.—*The Pharmacist.*

Cod-Liver Oil with Chloral.—The following mixture of cod-liver oil and chloral is said to effectively stop the night-sweats of consumptives, while at the same time producing sleep and improving the appetite:

Cod-liver oil	19 parts.
Chloral hydrate, cryst.	1 part. Mix.

Liquid Iron Albuminate. (Dr. J. Biel).—(Ferrum albuminatum solutum.)

Dissolve 10 grams of dry egg-albumen in 100 gm. of distilled water, and allow the solution to settle. To the clear solution add 3.2 gm. of liquor ferri chloridi, containing 30 per cent of ferric chloride (Fe_2Cl_6); and previously diluted with 10 volumes of water. Promote complete solution by gently warming and strong shaking. Then add to the liquid 20 gm. of 90 per cent alcohol, which must not produce any cloudiness, and finally add distilled water to make the whole weigh 200 grams.

When using, dilute this solution with 4 times its weight of water. It will then contain 0.033 per cent of metallic iron.

The liquid, previously to the addition of the last quantity of water, may also be evaporated, at a gentle heat, to a syrup; spread upon plates of glass and dried. It then forms transparent yellow scales, containing 3.34 per cent of metallic iron and soluble in hot water with addition of 1 or 2 drops of hydrochloric acid.

Eau de Lavande:—

The following formula, communicated by Dr. Bering in Bromberg, is said to yield a superior product:—

Ceylon cinnamon	125 grammes.
Cloves	250 "
Florentine orris root	500 "
Grains d'ambrette	500 "
Orange-peels, fresh	125 "
Coriander	125 "
Musk	1–1,5 "

are digested for 8 days with 23½ litres of cologne spirits, with frequent agitation. The liquid is then filtered, and to the filtrate is added

Balsam of Peru	120 grammes.
Oil of lavender, finest	375 "
Oil of bergamot	250 "
Musk	1.5 "
Orange-flower water (triple)	45 "
Rosewater	45 "

The whole is to be left standing for at least three months, then to be filtered and bottled.

Another formula:

Oil of bergamot	250 grammes.
" lemon	125 "
Balsam of Peru	125 "
Oil of lavender, finest	63 "
" cloves	63 "
Cologne spirits	5 litres.

Pulvis Sennæ Compositus. (New York Dispensary.)—

℞ P. sennæ,	
Potass. bitart.,	
Sulphur. sublim	āā ʒ ij.
P. zingiberis	ʒ ij.

Dose: one teaspoonful.

Formulæ of Secret Medicines.

(*Continued from page* 189.)

Ferruginous Remedies (Rob. Freygang, Leipzig):—

Iron Brandy is an ordinary clear brownish brandy, containing a very little bitter matter, like the stomachic bitters of the apothecaries, and mixed with about 1 per cent of sugar. 10,000 parts contain about 1½ part oxide of iron. *Iron Stomachic Bitters.*—This is more aromatic, but otherwise similar to the iron brandy: 10,000 parts contain ⅔ part iron oxide. *Iron Liqueur* is clear, agreeably tasting, of the color and containing much of the juice of raspberries. 10,000 parts contain nearly 1,200 of sugar and only 1 part of iron oxide. *Iron Syrup.*—Syrop ferrugineux de Quinquina. A clear, slightly violet-colored, thin, sweet fluid, containing spirit and sugar, of which cinchona bark may be an ingredient, though it is appreciable by neither taste nor tests. It contains 1¼ parts iron in 10,000 parts. *Iron Bonbons.*—Eighteen ordinary quadrangular bonbons, wrapped in white paper. They contain a trace of iron oxide.

The iron present in the above preparations is in the form of citrate.—*Hager.*

Syrup of Iron and Quinine (Grimault, Paris).—For disordered disgestion and chronic dysentery. Dissolve 10 grammes pyrophosphate of iron and sodium and 800 grammes sugar in 300 grammes water, by the aid of heat. Then dissolve 5 grammes spirituous extract of red cinchona in 100 grammes weak spirit; filter the solution, and mix it with the cooled syrup.—*Hager.*

Iron Wine (Gustav Von Lipp, Cleve) is a solution of extractum ferri pomatum in 25 to 30 parts wine.—*Hager.*

Electranodyn (Discovered and manufactured by A. Lipowitz).—For the cure of neuralgia, headache, migrain, faceache and apoplectic attacks. As a necklace for children for toothache, as a preventative of quinsy, etc. A tissue paper converted into a nitrogenous material (pyroxylin or *Düppelpapier*) by immersion in a mixture of sulphuric and nitric acids, and containing besides an insignificant proportion of wax and resin.—*Hager.*

Electromotive Essence (Romershausen).—An embrocation for restoring the suspended functions of the skin, by stimulating the flow of vital eletricity and the functions of the nerves. A solution of oils of turpentine and rosemary in the ninth dilution of alcohol, previously colored red with some vegetable dye.—*Reithner.*

Elixir Antigoutteux de Villette is a tincture of 100 parts brown cinchona bark, 50 parts poppy petals, 25 parts sassafras, 50 parts guaiacum in 4,000 parts rum, mixed with 2,500 parts syrup of sarsaparilla.—*Hager.*

Elixir de Pepsin Digestif (Grimault & Co.).—For loss of appetite and disordered digestion. Contains pepsin, in quantities not at all proportionate to the price of the article.

Elixir Deslauriers Toni-febrifuge au Quinquina et Caffé.—A tonic febrifuge. Yellow cinchona (Königschina), 20 grammes; brown cinchona, 8 grammes; powdered coffee beans, slightly roasted, 16 grammes; wine, 250 grammes; sugar, 15 grammes; citric acid, 2.5 grammes. Boil once after standing some time in a warm place, and filter. Add to the filtered liquid 85 grammes sugar and 15 grammes spirit.

Elixir de St. Hubert pour les Chasseurs is a solution of 2 parts carbolic acid in 50 parts spirit.—*Casselmann.*

Elixir for Impotence in Males (Dr. Ludwig Tiedemann).—Prepared from directions given in the Puntsaou from genuine ginseng root. 135 grammes of a dark-brown aromatic vinous liquid, prepared by digesting orange berries in wine. 4*s.* The embrocation is an equal quantity of a pleasantly-smelling liquid, consisting of spirit with tincture of storax, and a small admixture of volatile oils. 2*s.* The package costing 7*s.*, further contains directions for use, a medical diagnosis, and a pamphlet of medical advice by Dr. J. Müller.—*Hager.*

Elixir Karoly pour les Fourrures.—A solution of camphor and carbolic acid in strong spirit, mixed with a clear brown acrid tincture, perhaps tint. pyrethri rosei.—*Casselmann.*

Dr. Wilkinson's Elixir of Celery.—For increasing, preserving, and producing virility. Juniper berries, angelica root, lovage root, of each, 1 part; spirit, 12 parts; orange-flower water, rose-water, of each, 4 parts; spring water, sufficient. Distil 20 parts, and mix the distillate with 12 parts clarified honey.—*Hager.*

Bitter Elixir of Life (Jacob Wolff).—For strengthening the constitution. A brandy prepared from 1 gramme aloes, 10 grammes cinnamon, 2.5 grammes sweet flag, 5 grammes angelica root, .6 gramme cake saffron, 10 grammes caramel, 215 grammes glycerin, 180 grammes spirit, 350 grammes water.—*Hager.*

Elixir Tonique Antiglaireux de Guillé.—A stomachic tonic for diarrhœa. Calumba root, 90 parts; orris root, 60 parts; gentian root, 8 parts; jalap root, 1,500 parts; aloes, 13 parts; saffron, 60 parts; sulphate of quinia, 16 parts; tartar emetic, 2 parts; nitre, 16 parts; yellow santal, 30 parts; syrup prepared from barley sugar, rectified spirit, and water, of each, 11,000 parts. Macerate the drugs in spirit for 24 hours, and dissolve the salts in the water. Filter the liquids, mix and leave for 24 hours, then add the syrup, stand and filter next day.—*Reveil and Hager.*

Elixir Valerianatis Ammonici (Goddard).—Valerianic acid, 3 grammes dissolved in 40 grammes distilled water and neutralized with ammonium carbonate. Add this to 35 grammes spirit, 50 grammes syrup, 1 drop bitter almond oil, 2 drops oil of orange peel, 30 grammes diluted bitter almond water, 12 grammes tincture of red sandal, 3 grammes tincture of orange peel, 2 grammes burnt sugar, and filter.

Jarea's Email de Paris (Jared & Renf, Paris).—A preparation for washing. A red alcoholic liquid free from hurtful metals.

Embrocation Refraîchissante contre Entorses et Contusions Récentes (Hibon & Smith).—An ointment for blows, bruises, and sprains in domestic animals. Mix in a bottle 165 grammes water with 15 to 30 grammes pyroligneous acid or ordinary vinegar, and the whites of two eggs. Add by degrees 100 grammes spirit and 24 grammes turpentine oil, shaking vigorously till well mixed.—*Hager.*

Embrocation Questionan is a mixture of sulphuric acid and 90 per cent spirit, of each one part; olive oil and turpentine, of each 8 parts.—*Hager.*

Enamel of America (François Gregoire & Co., Philadelphia).—A washing liquid. A clear, colorless fluid, free from hurtful metals.—*Chandler.*

Snow-white Enamel for Whitening and Beautifying the Complexion (Phalon & Sons, New York).—A colorless fluid, containing 37½ per cent of lead carbonate.—*Chandler.*

Dr. Bradford's Enameline for the Complexion.—A colorless fluid, containing 6.6 per cent zinc oxide.—*Chandler.*

Encre pour les Dames (Quesneville, Paris).—An aqueous solution of soluble iodide of starch, specially intended for ladies' love letters. In four weeks characters written with it disappear, preventing all abuse of the letters, and depriving the lover of all documentary and special pretension to the possession of the heart of his mistress. The signers of bills of exchange who use this ink are freed from all obligations in the same length of time.—*Hager.*

English Patent Washing Crystals.—6 parts soluble glass, 29 parts anhydrous washing soda, 60 parts bicarbonate of soda, 5 parts water.—*Hager.*

English Horse-balls or Horses' Purging Balls.—500 parts aloes, 50 parts gamboge, 120 parts soap, 15 parts oil of anise, 10 parts glycerin, 5 parts aniseed, made into a mass with brandy and divided into 30-gramme balls.—*Hager.*

"*English Phissicks*" (!) are horse-balls consisting of Barbados aloes, 25 grammes; green soap, 10 grammes; ginger, 5 grammes; oil of caraway, 20 drops.—*Hager.*

Eau Dentifrice (Pierre, Paris).—15 grammes star anise are exhausted with 200 grammes 90 per cent spirit, the solution is colored with aniline red, filtered, and 60 drops each of star anise oil and peppermint oil are dissolved in it.—*Hager.*

Enthaarungsmittel Rusma—Depilatory Rusma—(Edm. Bühligen, Leipzig).—A mixture of 2 to 3 parts sulphide of arsenic with 15 parts powdered caustic lime.—*Hager.*

Lohr's Epidermaton.—For tetter, freckles, etc. A nearly clear and colorless fluid, containing traces of ammonia, soda, lime, some alumina, and .08 grammes benzoic acid. The grayish-white precipitate, weighing .83 grammes, consists chiefly of a resin resembling benzoin.—*Hager.*

Gadeen's or Arnim's Cure for Epilepsy.—Small pieces of bread are soaked in a solution of 150 grammes of liver of sulphur in ½ litre of spirit, to which some birch tar is sometimes added. If this should not be successful, powders are administered, made from a mixture of 15 grammes of flowers of sulphur, with 500 grammes of sugar of milk.—*Hager.*

Cure for Epilepsy (D. Besser, Berlin).—30 grammes spirits of camphor, colored red.—*Schädler.*

Cure for Epilepsy (Durand).—600 pills, the chief ingredient of which is an extract of *galium palustre* (marsh goosegrass), to be followed by a few purging powders. They must be taken at the time of full moon in a decoction of the chopped dried leaves of the ash (*Fol. Fraxini excelsior*).—*Hager.*

Fröndhoff's Epilepsy Cure.—A linen bag to be worn at the pit of the stomach for six months. It contains ambergris, 2 grammes; crabs' eyes, red coral, peony seed, broken small, of each 1 gramme, with 7 peony seed-kernels.—*Hager.*

Epilepsy Cure (J. H. Hoesch, Cologne).—A mixture of 1,750 parts Provence oil, 250 parts sugar, 15 parts arrow-root meal; oak mistletoe, Florentine orris-root, zedoary, of each 5 parts. 750 grammes. To poor people at their first purchase, 2*s.* 9*d.* each; following purchase, 6*s.* According to Wittstein's earlier analysis nothing but a mixture of 8 parts olive oil, 1 part sugar.—*Hager.*

Epilepsy Cure (Moritz Holtz, Berlin).—12 flasks, each containing 5 grammes bromide of potassium dissolved in 150 grammes water.—*Hager.*

Epilepsy Cure (C. Jacoby).—Two boxes of pills, 60 in each. In one the pills are rolled in powdered orris; in the other they are silvered; one is for cure, the other for convalescence. In both cases the 60 pills are made from 3 grammes zinc oxide, 2 grammes calcium phosphate, .5 gramme rhubarb, .5 gramme mugwort root.—*Kranier.*

Epilepsy Cure (Dr. Killisch, Berlin).—200 grammes water, 7.5 grammes potass. bromid., .03 gramme atropine sulphate; the last is sometimes absent. It is also met with slightly colored with indigo. Very costly.—*Hager.*

Epilepsy Cure.—New and valuable remedy for epilepsy or falling sickness, and also for all kinds of nervous diseases, invented by the renowned Doctor and Professor G. Paoli, Rome, and made and sold by Rigotti, Apothecary, Fiume. The powder consists of 10 parts valerian root, 2 parts peony root, 2 parts asarabacca root, 2 parts arum root, 2 parts wormwood root, 1 part cinnamon, 30 parts sugar, 1 part ammonium valerianate (perhaps produced by the action of ammonia gas on the powdered root).—*Hager.*

Epilepsy Cure (Quante, Warendorf).—Rectified petroleum colored with alkanet with an insignificant proportion of a stinking animal oil. With it is found a printed recipe for a tea to be made of equal parts of linden flowers and pansy. Other recipes, also against epilepsy, are: (1) Potassium bromide, ammonium bromide of each .045; zinc valerianate, .06; wormwood root, .62; M.D.S. (2) Ol. succini rect., 11.0.—*Hager.*

Epilepsy Powder (The Dresden Deaconesses' Institution).—A magpie shot on Twelfth-night, burnt to a coal.

Epilepsy Powder (Count Duplessix-Parseau).—A mole roasted black, or, according to Gauger, rats dried, half burnt, and powdered.

Epilepsy Powder—Pleis' Fit Powders.—24 brown powders, very variable in weight, each containing on an average .4 grammes potassium bromide, and 1 gramme brown bitter organic powder mixed with sugar and containing a trace of iron oxide (gentian powder). According to Miller it is a powder of potassium bromide and gentian extract.—*Wittstein.*

Epilepsy Powder—Poudre Unique (Godernaux. Is sold at the Pharmacie Rue de la Feuillade 7, Paris).—Powders, each containing 5 grammes calomel.—*Apoth. E. Z. in P.*

Epilepsy Powder (Ragolo. Manufactured originally at Nürnberg, then at Lübeck, latterly at Hamburg by a certain Eckhorst).—According to Knopf:—Valerian root, 60 parts; orange leaves, 20 parts; sal ammoniac, 2 parts; cajeput oil, 3 parts. According to Sundelin:—Valerian root, 12 parts; magnes. carb., 3 parts; sal ammoniac and cajeput oil, of each 1 part. According to Gmelin and Feuerstein:—Valerian root, 60 parts; sal ammoniac, 6 parts; magnes. carb., 6 parts; cajeput oil, 3 parts. According to Radius:—Valerian root, 18 parts; orange leaves, 6 parts; magnes. carb. and cajeput oil, of each 1 part. According to Hager:—Chalk, 20 parts; magnes. carb., 10 parts; peony root, 30 parts; orange leaves, 30 parts; oak misletoe, 30 parts; ammon. carb., 3 parts; sal ammoniac, ¼ part.

Epilepsy Powder (Rindscheidler).—Dittany root, peony root, and mistletoe wood, of each 5 parts; castoreum, 1 part.

Epilepsy Powder (Sleet van Oldruitenborgh, Holland).—Dittany root, 8 parts; zedoary powder, 1 part; 2.5 grammes to be taken once a day in linden-flower water.—*Aldis.*

Epilepsy Powder (Wepler, Berlin).—Hempen threads, charred and powdered.—*Hager.*

Epilepsy Powders (Wiedebach & Schlemüller, Arensdorf).—Gray powders, labelled 1, 2, and 3, agreeing with one another, and each consisting of about a teaspoonful of half-calcined bones. Rather a "sympathetic" remedy.—*Hager.*

Pea and Malt Flour (Baron Friedel, of Dahsau near Herrnstadt).—This is a food easily digestible, convenient for kitchen use, and cheap when compared with flesh. It is a bright yellow powder with an agreeable aromatic bread-like taste and smell, containing in 100 parts 28.1 legumin and albumen, 50.94 starchy bodies (starch, dextrin, mucilage, and pectin), 2.27 fat, 8.02 cellulose, 2.55 mineral matters (ash), 8.12 water.—*Dr. Franz Hulva.*

Ervalenta (Warton).—A mixture of the flour of French-grown red lentils and bean meal, with 3 to 6 per cent of sugar and salt. It has recently, however, been met with of a different composition.

Esprit d'Amaranth.—Under this name are included three freckle remedies. No. 1 has printed directions for use, signed by Apotheker Weinitschky. Analysis gives for No. 3 (which is to be used first) 1 gramme corrosive sublimate in 30 grammes impure spirit; No. 2 has 2 grammes, and No. 1, 3 grammes of the sublimate.—*Traffehn.*

Esprit de Lanneton.—Spirit of maybugs or cockchafers. (Franz Gross, Landsberg on the Warthe). A turbid yellowish spirituous fluid, consisting of 80 parts Castile soap, 20 to 25 camphor, 400 water, 600 alcohol, 80 to 100 parts fresh maybugs. Macerate and strain.—*Hager.*

Esprit des Cheveux or Vegetable Hair Balsam (Hutter & Co., Berlin).—Diluted mixtura oleoso-balsamica (Ph. G.) (Hoffman's balsam of life), colored brownish yellow by macerating in it some cloves.—*Wittstein.*

Essence Lemoine—watchmakers' oil—is made by distilling from a water-bath a mixture of 200 parts coal-tar benzine, 10 parts lavender oil, 5 parts bergamot oil. It must be carefully protected from air and sun-light. Our watchmakers use the benzine of commerce.—*Hager.*

Essentia Antiphthisica (Dr. Lobethal, Breslau).—A solution of common salt—1 in 7—with traces of iodine.—*Wittstein.*

Oil Essence for Gouty Pains (Eleonore and Johann Bauer, living not far from Hietzing).—A bottle containing 65 grammes of a yellowish fluid, in two layers, which will not incorporate either by shaking or heat. The upper layer (about 40 grammes) consists of sunflower seed oil; the lower of a mixture of water, ether (6 grammes), and the juice of the so-called sea onion [not squill, but the *Ornithogalum caudatum*, a species of star of Bethlehem used at the Cape of Good Hope, as squill is used with us.—ED. C. & D.]. It is cultivated by the gardeners and sold to the public by this name.—*Hager.*

Ether Chlorique.—A mixture of 1 part chloroform with 10 parts spirits of wine.

Euchlorin Toilet Vinegar or Preservative Cosmetic (E. Meitzen, Cologne). A protection from contagions of all kinds. It consists of two fluids. One, labelled "Euchlorin" and kept in a bluish glass bottle, is a solution of sodium carbonate, saturated with chlorine and hypochlorous acid (Eau de Labarraque). The other, an opaque white bottle labelled "Toilet Vinegar," is simply aromatic vinegar mixed with a little benzoin tincture and filtered.—*Hager.*

Eugenie's Favorite (Mlles. T. & L. Jouvin, Paris).—A colorless fluid with 28 per cent lead carbonate.—*Chandler.*

Eutodome (Sonntag, Weichselmünde).—A non-poisonous field-mouse exterminator. A mixture of rye meal, barley meal, squill, fatty oil, and red bole.—*Hager.*

Extract-Radix—A Toothache Remedy (Schott, Frankfort-on-the-Maine).—A tincture of aconite and oneberry.—*Hager.*

(Continued from the *London Chemist and Druggist.*)

Camphor Ice.—

Oil almonds, fixed	1 lb.
Rose water	1 lb.
White wax	1 oz.
Spermaceti	1 oz.
Camphor	2 oz.
Oil rosemary	1 drachm.

Dissolve the camphor in the almond oil; then melt the wax and spermaceti together, taking care not to heat the mixture more than necessary just to melt them; add the almond oil; then set the vessel into cold water, and, with brisk agitation, gradually incorporate with it the rose water and essential oil, until the mixture is perfectly smooth and homogeneous.

Pulvis Camphoræ Compositus (Gallop's Powder).—

℞ Camphoræ,	
Pulv. acaciæ,	
" sacchari	āā ʒ i.

Mr. C. C. Bingham, of St. Johnsbury, Vt., highly recommends this powder as a convenient form for keeping and administering powdered camphor. Mr. S. A. D. Sheppard, of Boston, considers it so excellent a preparation as to deserve to be received into the pharmacopœia.

Pancreatic Emulsion of Cod-Liver Oil.—

R. V. Mattison gives the following formula:

Pancreatin, saccharated	ʒ i.
Water	fl. ʒ iv.
White sugar, powd.	ʒ vii.
Cod-liver oil	O. iss.
Oil gaultheria	gtt. xx.
" bitter almonds	gtt. v.

(10 grains pancreatin emulsify ʒ ij. of cod-liver oil).

Cod-Liver Oil with Lactophosphate of Lime.—

The following formula is recommended by Mr. Shinn:

Cod-liver oil	O. i.
Gum arabic, pd.	ʒ iv.
Sugar, powd.	ʒ vi.
Sol. lactophosph. calcium (i. ʒ in fl. ʒ vi. ss)	fl. ʒ viss.
Lime-water	fl. ʒ viss.

Add the cod-liver oil and essential oils last.

Thielmann's Cholera Drops.—

℞ Ol. menth pip.	partes 3
Alcoholis fort.	" 25
Chloroformi purif.	" 2
Solve et adde	
Tinct. opii	" 10
Vini ipecac	" 25
Tinct. valerian	" 40

M. Dose: A teaspoonful for adults.—C. S. N. Hallberg in *The Pharmacist*, 1878, p. 65.

Glyconin Emulsion of Cod-Liver Oil.—

1. *Glyconin:*

Yolk of egg, free from the white	4 parts.
Glycerin	5 parts.

Beat or whip well the yolk in the usual manner, pour the liquid into a bottle, add the glycerin, and shake well together.

2. *The Emulsion:*

Cod-liver oil	ʒ iv.
Glyconin	ʒ ix.
Spts. amm. arom.	fl. ʒ i.
Sherry wine	fl. ʒ ij.
Dil. phosphor. acid	fl. ʒ ss.
Ess. of bitter almonds (1 : 40)	fl. ʒ ij.

The phosphoric acid naturally neutralizes the ammonia of the compound spirits of amm.; but nevertheless the above formula, devised by Mr. G. C. Close, of Brooklyn, is generally followed.

NEW PATENTS.

[*The following list is compiled from official sources, especially for* NEW REMEDIES, *by S. H. Wales & Son, Solicitors of Patents, 10 Spruce St., New York, who will furnish gratis to subscribers any information relating to this department.*

TRADE MARKS REGISTERED DURING MARCH, 1878.

Medicinal Preparations.

5,690. Brown Medicine and M'f'g Company, Leavenworth, Kans. A pictorial illustration, composed of a globe or sphere surrounded by a druggist's mortar and pestle, and traversed by a band supporting a druggist's graduated glass, and chemist's retort.

5,696. Vough & Killgore, Dover, New Jersey. The letters "X X."

5,724. William R. Warner & Co., Philadelphia, Pa. The fanciful word, "Ingluvin."

5,737. Wm. H. Jacobs, Hamilton, Ohio. The figure of a diamond form, including the representation of the hop, and having the representation of the foliage around the figure.

5,738. Dr. D. Jayne & Son, Philadelphia, Pa. "Of certain pictorial matter, comprising a portrait of Dr. David Jayne, and front and rear view of our place of business."

5,739. Dr. D. Jayne & Son, Philadelphia, Pa. "Of certain pictorial matter, comprising a front-view of our place of business and a medallion portrait of Dr. David Jayne."

5,740. Dr. D. Jayne & Son, Philadelphia, Pa. "Of certain pictorial matter, representing the south front of our place of business."

5,741. Dr. D. Jayne & Son, Philadelphia, Pa. "Of pictorial matter comprising certain figure views, together with front and rear views of our place of business."

5,742. Dr. D. Jayne & Son, Philadelphia, Pa. "Of certain pictorial matter, representing a group of women and children, as shown on the fac-simile."

5,743. Dr. D. Jayne & Son, Philadelphia, Pa. A medallion portrait of Dr. David Jayne.

5,748. Wm. T. Peek, Westfield, N. Y. The vignette shown.

5,767. T. A. Smurr, Ottawa, Ill. The word-symbol "None Such," and name "Doctor T. A. Smurr."

5,773. E. W. Grove, Paris, Tenn. The word-symbol, "Terrine."

5,783. Sydney H. Chapin, Garden City, N.Y. Words, "Dr. Chapin's Specific," and the nicked shield having arranged on its face a five-pointed star.

5,785. James Y. Kelly, Georgetown, Ky. The fanciful word "Tanwibs."

5,786. Emil C. Luks, Shenandoah, Pa. The word "Moreau's" and the vignette, as described, consisting of a steer's head between two sheaves of grain.

5,787. Wm. M. Olliffe, New York, N. Y. The fanciful words "Big Six" and the numeral "6."

5,788. Sam'l A. Richmond, St. Joseph, Mo. The figure of a man, as shown in the accompanying fac-simile, the same being represented as in an epileptic fit, falling backwards, with his arms extended, and his cane and hat dropping to the ground.

Soaps, Candles, etc.

5,717. Wm. Dreydoppel, Philadelphia, Pa. The word symbol "Lincoln Monument."

5,744. Joseph J. Keefe, Philadelphia, Pa. The representation of a woodman's axe and the auger crossed.

Miscellaneous.

5,794. Isaac B. Seeley, Philadelphia, Pa. The symbol shown in the accompanying fac-simile, to wit: the representation of a truss, beneath which is arranged a series of detached pads.

5795. Isaac B. Seeley, Philadelphia, Pa. The symbol shown in the accompanying fac-simile, to wit: the representation of a collection or grouping of trusses and remedial supporters arranged in columns.

5,796. Isaac B. Seeley, Philadelphia, Pa. The symbol shown in the accompanying fac-simile, to wit: the representation of human limbs with, respectively, an applied knee cap, anklet, and stocking, and of a human body with an applied abdominal belt, sometimes known as elastic surgical bandages.

March 26th.

Dental plate, S. C. Carter..... 201,748
Dental plugging instruments, attachment for, S. D. Strohm..... 201,849
Faucet, W. D. Seal..... 201,634
Filter, J. C. Fisher..... 201,602
Inhaler, L. E. Felton..... 201,659

TRADE MARKS REGISTERED DURING APRIL, 1875.

Medical Compounds.

5,801. G. W. Appleton, Hardenfield, N. J. The word-symbol "Cureine."

5,820. Ann E. Brady, New York, N. Y. The symbol of a diamond and the word "Diamond."

5,825. Fredrick Reinecke, Allegheny, Pa. The Austrian eagle with outstretched wings and with my monogram F. R., on the breast thereof.

5,827. R. E. Sellers & Co., Pittsburg, Pa. The ornamental figure or bordering, and the words "Sellers Imperial."

5,831. Rush B. Heintzelman & Charles B. Coe, New York, N. Y. The fancifully formed symbolic word "Catereba."

5,836. Weeks & Potter, Boston, Mass. The word-symbol "Deodorolein."

5,843. G. W. M. Reed, New Haven, Ct. The words "Gilt Edge."

5,847. Clark & Co., Baltimore, Md. The word symbol "Greek."

5,848. Consseus & Tables, Nashville, Tenn. The word-symbol "Buckeye."

5,849. C. D. S. Früh, Philadelphia, Pa. The word-symbol "Deuzotine."

5,888. C. T. Swift, Atlanta, Ga. The monogram composed of the letters S S S and facsimile of my signature "C. T. Swift."

5,898. C. F. Asche, Hamburg, Germany. The coat-of-arms of the city of Hamburg, and the letters C. F. A. as shown.

5,902. R. S. Powell & John J. Turner, New York, N. Y. The designation "The Sun."

5,908. S. J. Cox & Co., Chelsea, Mass. The word "American," the facsimile of our signature, S. J. Cox & Co., and the monogram A. P. C.

5,909. Wilmer & Keller, Baltimore, Md. The word-symbol "St. Jakobs."

5,920. Dundas Dick, New York, N. Y. The new and arbitrary word "Laxaline."

5,927. Fredrick Humphreys, New York, N. Y. The figure of a girl represented as running and holding above her head branches. Above these branches are the words "The Marvel of Healing."

5,932. Rhodes & Lewis, San José, Cal. The figures 38 inclosed in a symbol.

5,935. Chas. W. Scott, Hartford, Ct. The word-symbol "Wyomoke."

5,938. Miranda C. White, New York, N. Y. The word symbol "Asiatic."

5,943. F. W. W. De Meyer, New York, N. Y. The pictorial representation of a horse-shoe magnet.

Paints and Chemicals.

5,802. Gutta Percha Paint Co., Cleveland, O. The word-symbol "Floated."

5,871. Norton & Wieder, St. Louis, Mo. A monogram placed in the centre of a four-cornered shield.

5,906. G. J. Stevens, Brooklyn, N. Y. The word-symbol "Calcicake."

5,946. Solvay & Co., Bouffioulx, Belgium. An arrow traversing a capital letter S, the head of shaft of said arrow being formed by an inverted letter V, and the feathers of said arrow being represented in the usual manner.

Carbonated Beverages.

5,818. C. D. Swain & Co., Boston, Mass. A device consisting of Maltese cross, having within a circle the centre of the cross a spouting spring, small brook, foliage and sky in the background, while in the outer rim of the circle is entwined a wreath of flowers.

2,878. Thomas F. Goode, Boydton, Va. The symbol of a woman, as shown.

LABELS REGISTERED DURING MARCH 1878.

March 5th.

1,429. "Sulphide of Arsenicum." G. C. Dohme & Co., Baltimore, Md.

1,431. "French's Rubber Cement." David H. French, Hudson, Ill.

1,432. "Magill's Chill Cure." Henry A. Magill, Louisville, Ky.

1,433. "Dr. H. Mozley's Lemon Elixir." H. Mozley, St. Louis, Mo.

1,434. "Bunsen's Dyspepsia Cure." Sloan & Co., Philadelphia, Pa.

1,435. "Byerly's Gonorrhœa Mixture." Sloan & Co., Philadelphia, Pa.

1,436. "Sloan's Lacto-Phosphate of Lime, Iron, and Cod-liver Oil." Sloan & Co., Philadelphia, Pa.

1,438. Design for Medicine Label. Albert Snyder Sherman, Texas.

March 12th.

1,440. "Bucklen's Arnica Salve." Herbert E. Bucklen, Elkhardt, Ind.

1,441. "Dr. Shonyo's German Bitters." Eastman & Fitch, Concord, N. H.

1,442. Herrshaw's Cure." Lyndon A. Hastings, Lawrence, Mass.

1,446. "Pneumonic Compound Medicines for Swine." Thomas C. Raymer, Chicago, Ill.

March 19th.

1,448. "Allen's Compound Extract of Butternut for the Blood." Wm. Allen, Ft. Edward, N. Y.

1,449. "Angostura Aromatic Bitters." C. W. Abbott & Co., Baltimore, Md.

1,450. "Bennett's Great Rheumatic Compound—The Lame Man's Friend." Wm. W. Bennett, Little Cooley, Pa.

1,452. "Dr. Halpruner Healing Salve." Winfield S. Halpruner, San Francisco, Cal.

March 26th.

1,456. "Stannon's Gold for Permanent Fillings." Henry S. Chase, St. Louis, Mo.

1,459. "Dudley's Emulsion of Pure Cod-Liver Oil." Dudley & C., Brooklyn, N. Y.

1,460. "G. V. Howe's Cherry Tonic." G. V. Howe, Otwell, Ind.

LABELS REGISTERED DURING APRIL, 1878.

1,467. "Parvules." W. R. Warner & Co., Philadelphia, Pa.
1,468. "Dr. E. B. Halliday's Blood Purifier." S. Blackford, St. Paul, Minn.
1,472. "Dr. B. Hazelton's Indian Liniment." Chas. T. Newman, Manchester, N. H.
1,473. "Dr. Kaufmann's Sulphur Bitters." Aaron P. Ordway, Laurence, Mass.
1,474. "Dr. J. E. Roseborough's Compound for Stomach and Heart." J. E. Roseborough, Shiloh, Ohio.
1,475. "Dr. Button's Coffee." R. H. Sherman, Norwich, Ct.
1,476. "Tarr's Pain Cure." C. A. Tarr, Biddeford, Me.
1,483. "Aromatic Extract of Jamaica Ginger." Holbrook & Co., Salem, Mass.
1,486. "Mineral Olive Oil." Thompson & Bedford, New York, N. Y.
1,487. "Malarial Cure." Wm. G. Atwater, New York, N. Y.
1,496. "Household Mixed Paint." Alfred T. Stevens, Brooklyn, N. Y.

PATENTS GRANTED DURING APRIL, 1878.

April 2d.

Atomizer, H. Weinhagan	201,967
Atomizer, L. Wilkinson	201,898
Bath, portable shower, C. R. Furcy	202,015
Battery, galvanic, C. A. Hussey	201,924
Beer, fermenting, G. Bartholomae	201,982
Bottle-stopper, N. Prescott	201,891
Bottle-stopper, C. Sedgwick	202,059
Bottle-stopper, F. J. Seybold	201,953
Bottle-stopper fastener, F. J. Seybold	202,954
Dental bracket, W. D. Ewart	201,876
Dentist's tools, R. B. Donaldson	202,006
Electric machine, E. Weston	201,968
Gas, manufacturing of, A. C. Rand	202,050
Pessary, R. Lockwood	202,037
Scales, G. R. Williams	201,972
Scales, S. F. Schweitzer, G. Kinsey	202,057
Scales, C. Berst	201,984
Teeth, filling for, N. B. Slayton	201,895

April 9th.

Bottle-stopper, A. E. Barthel	202,138
Bottle-stopper, N. Fritzner	202,100
Bottle-stopper, W. G. Whitman	202,320
Gas, manufacturing of, T. G. Macy, E. F. Reed	202,279
Medical compound, H. Bowie	202,141
Medical compound, T. P. Childs	202,231
Medical compound, G. P. Delisser	202,246

April 16th.

Amalgamator, J. W. Bancroft & T. Walker (R).	8,175
Amalgamator, ore, W. S. Shotwell	202,595
Bottle-stopper, W. D. Doremus	202,525
Bottle-stopper, G. W. Gomber	202,434
Effervescent liquids, apparatus for dispensing, A. Habernich	202,543
Soda, manufacturing of bicarbonate of, T. G. Lewis & W. J. Menzies	202,356

April 23d.

Amalgamator, S. F. Charles	202,703
Amalgamator, G. J. Firmin & T. A. D. Forster	202,804
Bathing house, N. Overfield	202,748
Bottle-stopper, N. Fox	202,714
Effervescent liquids, apparatus for drawing, T. Marker (R)	8,200
Insect powder gun, W. Kennish	202,830
Medical compound, H. Falk	202,801
Scales, weighing, T. Fairbanks	202,800
Speculum, I. C. Hall	202,813
Truss, L. T. J. Lubin	202,842
Truss, L. T. J. Lubin	202,843

ITEMS.

American Pharmaceutical Association. — The twenty-sixth annual meeting of the American Pharmaceutical Association will be held in the city of Atlanta, Georgia, on the first Tuesday (the third day) of September, 1878, commencing at three o'clock P.M.

Mr. J. W. Rankin, of Atlanta, the Local Secretary, will be glad to receive articles for exhibition and make arrangements for their display. There will doubtless be a large gathering of Southern pharmacists on this occasion, and from among them a considerable accession to our ranks; many new members are also expected to join us from the more Northern States.

The twenty-sixth meeting is likely to be one of more than ordinary interest. In addition to the usual reports, it is expected that the Committee on the Revision of the Pharmacopœia will have a very important and interesting one to present; much valuable information may also be expected in the replies to queries, and in the volunteer papers. The city of Atlanta has many attractions, and is beautifully and healthfully situated amidst charming scenery. Our Southern friends are expecting a large attendance, and will be glad to welcome to their beautiful city all who can come. Let there be a grand rally of Northern pharmacists.

WM. SAUNDERS, *President.*
London, Ontario, Canada, June 17, 1878.

First Annual Meeting of the Pennsylvania Pharmaceutical Association.—This Association, after completing its organization at Harrisburg in February, adjourned to meet in Reading on Tuesday, the 11th of June. Accordingly, on that day the members assembled together in American House Hall, Reading, and were called to order at 11½ o'clock A.M. by the president, Mr. Charles A. Heinitsh of Lancaster, who opened the meeting with a brief address, in which he reviewed the work of the meeting in Harrisburg on the 26th of Feb., and urged the members individually to labor for the improvement of the science of pharmacy.

Mayor Evans was then introduced to the Association by Mr. Albert R. Durham, of Reading, and welcomed the Association to the city in a short congratulatory speech.

The chairman of the Executive Committee reported favorably on forty-two applications for membership. The secretary was directed to cast an affirmative ballot for the nominees. The president then announced that the Association numbered sixty-four members, most of whom were present at the meeting.

The secretary reported that inquiries had been made in reference to procuring a charter for the Association, and application would be made at the August term of court.

Prof. J. M. Maisch read an essay on the Drug-press, prepared by Charles T. George, of Harrisburg. This was accompanied by a drawing of an apparatus of new design, which is claimed to be more simple in construction and more efficient than the press commonly in use. Mr. George stated that no patent had been applied for, and that any druggist is at liberty to use it.

Mr. George also exhibited some citrate of iron and cinchonidia made by himself.

At one o'clock the Association adjourned to meet at 2½ P.M.

At the hour fixed in the afternoon, the president called the Association to order, and announced that the order of business would be the election of five delegates to the American Pharmaceutical Association, the adoption of a form of certificate of membership, and the selection of the time and place for the next meeting. Nominations for delegates to the American Pharmaceutical Association, which meets at Atlanta, Georgia, having been made, a ballot was taken, and the following gentlemen declared elected: Joseph L. Lemberger, Lebanon; Geo. W. Kennedy, Pottsville; Dr. Geo. Ross, Lebanon; I. H. Stein,

Reading; Charles T. George, Harrisburg. On motion of Prof. Remington, a committee of three was appointed to procure designs for a certificate of membership, and report at the next annual meeting. Messrs. Remington, Maisch, and Patterson of Philadelphia were placed on this committee by the President.

Mr. I. Kellar Burns moved that a committee of three be appointed to select a time and place for the next meeting. The chair named for this committee: Messrs. Burns of Minersville, Horn of Philadelphia, and Zellar of Bellefonte, who, after a short consultation, reported Pittsburgh as the place, and the second Tuesday of June, 1879, as the time.

On motion of Prof. J. M. Maisch, the secretary was directed to procure a suitable blank book for the members to register their names at the meetings of the Association. The secretary was also instructed to have a suitable number of copies of the Constitution and By-Laws and a list of the members of the Association printed.

On motion of Prof. Remington, a committee of three on Papers and Queries was appointed: viz., Messrs. G. W. Kennedy, Charles T. George, and Chas. A. Heinitsh.

Mr. I. H. Stein desired information in regard to the State law, requiring druggists to pay a license for selling patent medicines. In some counties they pay no license, while in others the law is rigidly enforced.

The President stated that these licenses were graduated from five to thirty dollars, according to the amount of sales, and all kinds of dealers selling patent medicines are liable to the payment of the license. In his county (Lancaster) the law is not enforced.

Mr. Lemberger, of Lebanon, said that he was obliged to pay thirty dollars a year, and he considerd it an unjust and oppressive tax. Remarks were made by other members on the manner in which the law is enforced in their locality.

On motion of Mr. Lemberger, a resolution was then adopted to refer the matter to the Committee on Legislation, with instructions to circulate petitions in the different counties for the repeal of the act, and to submit them to the next Legislature.

Prof. Maisch then delivered a brief lecture on some new drugs and exhibited specimens.

The following gentlemen were elected honorary members: Wm. Saunders, London, Ont., Canada, President of the American Pharmaceutical Association; Charles A. Tufts, Treasurer of the American Pharmaceutical Association; Dr. E. R. Squibb, Brooklyn, N. Y.; Dr. Robert Bridges, Philadelphia.

The business of the Association being concluded, a vote of thanks was extended to the druggists of Reading, and to the reporters of the press present at the meeting for their kind attention. Dr. P. M. Ziegler replied in behalf of the Druggists' Association of Reading. He said that, in anticipation of this meeting, the druggists of this city had come together and revived an organization which had been in existence there some years ago.

President Heinitsh tendered his heartfelt thanks to the members of the Association for their attendance and support, and hoped each one would do something towards advancing the interest of the Association.

The Association then, at 5:20 P.M., adjourned to meet in Pittsburgh on the second Tuesday of June, 1879. The following are the officers of the Association for 1878: *President*, Chas. A. Heinitsh, Lancaster; *1st Vice-President*, Geo. H. Kennedy, Pottsville; *2d Vice-President*, Wm. H. Egle, Harrisburg; *Treasurer*, Joseph L. Lemberger, Lebanon; *Secretary*, J. A. Miller, Harrisburg; *Asst. Secretary*, J. H. Stein, Reading.

Kentucky Pharmaceutical Association.—Pursuant to resolution at the "Meeting of Organization," held in Frankfort, July, 1877, the Kentucky Pharmaceutical Association met in the Council Chamber, in the city of Covington, May 15th, 1878, at 2.30 P.M.; the President, H. W. Averill, Esq., of Frankfort, in the chair. The president read a short address of welcome, in which he congratulated the members on having effected a permanent organization calculated to foster and develop the scientific interest of pharmacy in Kentucky. The report of the Committee on Constitution and By-laws was received, amended, and adopted—with the provision that the by-laws be referred to a special committee, to report any changes necessary to their perfection at the next annual meeting. An election of officers was then held, and resulted as follows: H. W. Averill, Frankfort, President; Vincent Davis, Louisville, 1st Vice-President; G. A. Zwick, Covington, 2d Vice-President; M. Hermance, Covington, 3d Vice-President; W. G. White, Richmond, Recording Secretary; C. Lewis Diehl, Louisville, Corresponding Secretary; Peter Nodler, Covington, Treasurer. The Committee on Queries reported a series of ten queries for general acceptance, and for discussion at the next annual meeting. The President, with the advice of the Executive Committee, was empowered to appoint delegates to the meeting of the Am. Pharm. Association in Atlanta. After the appointment of the Standing Committees for the year, the Association adjourned, to meet in Louisville during the month of May, 1879, the day and hour to be named by the President.

The meeting was well attended by pharmacists representing the various sections of the State, and the two sessions held were characterized by complete harmony and singleness of purpose.

C. LEWIS DIEHL,
Corresponding Secretary.

St. Louis College of Pharmacy.—The Fourteenth Annual Meeting of the St. Louis College of Pharmacy was held on Monday, May 27th; the *President*, Mr. Chas. Bary, occupying the chair. Following a report of the *Treasurer*, Mr. Charles A. Lipo, which showed a prosperous condition of the finances of the College, an election of officers and trustees and a Board of Pharmacy was held with the following result:

President, Theodore Kolb; *Vice-President*, Charles Gietner; *Treasurer*, F. W. Sennewald; *Secretary*, E. P. Walsh; *Trustees*, M. W. Alexander, W. H. Crawford, H. E. Hoelke, F. X. Crawley, and George Ude; *Board of Pharmacy*, Theodore Kolb, Charles Habbicht, M. W. Alexander, J. M. Good, and F. X. Crawley.

The further organization of the Board of Pharmacy was subsequently completed by the election of M. W. Alexander as its *Chairman* and Charles Gietner as *Secretary*.

Chilian Sulphur.—Sulphur in immense quantity has been discovered at Chillan. The quality is so fine that it is said to require only to be ground and sifted to be ready for market.

Indian Opium.—Owing to deficient rainfall, good authorities estimate that the opium yield of Malwa will not exceed one-half of an average season's harvest.

The Metric System in the Medical Associations.—At the meeting of this association, on the 5th of last month, the following resolution was unanimously adopted by the sections of Practical Medicine, Materia Medica, and Physiology:

Resolved, That this section, recognizing the value of the metric system for its uniform, international, indestructible, generally applicable, convenient, simple, safe, and scientific character, hereby recommends to all physicians the use of the same in their practice and in their writings and teachings.

The Pennsylvania State Medical Society have lately resolved to use the metric system alone in their published transactions and in papers presented to the association, containing expressions of quantity.

The Province of Carubaya, one of the richest, though most inaccessible parts of Peru, and the source, formerly, from which much calisaya bark was derived, is now being examined by government engineers with a view to improving the lines of communication.

Chloral Hydrate for Removal of Warts.—Dr. Craig, of Montreal, recommends a 20-grain solution of chloral hydrate as a painless and effectual application for the removal of warts.

Tea and Coffee in Ceylon.—Tea is beginning to take a place almost side by side with coffee in Ceylon. At the end of last year, a "sample" of 158 lbs. was exported from Colombo, and the expectation is cherished in the island that this may be the forerunner of a large trade in the article. The cultivation of the plant is being encouraged by the offer of prizes at the Agricultural and and Horticultural Exhibitions, and experienced planters of Assam have given a very favorable opinion of the capabilities of the soil and climate of parts of Ceylon for the production of high-class tea.

A new coffee disease is announced from Ceylon. A Tinnevelly planter has found a large proportion—sometimes sixty per cent—of his coffee berries containing beans of light substance and black in color, apparently rotten, though appearing healthy outside. The cause has not yet been ascertained.—*Amer. Mail.*

The Eucalyptus Family.—About 134 different species of Eucalyptus are known and recognized upon the Australian continent, 34 of which occur in the extra-tropical southern portion. The latter do not attain the height and size of the species in the warmer districts; their average height is 120 to 130 feet, and their average diameter 6 to 8 feet, provided they are situated upon a fertile soil or near the edge of a river. The most valuable species are termed by the colonists "Red, White, Blue, Swamp Gum-tree; Stringybark-tree; Peppermint-tree, etc." The Red Gum or Red Gum-tree, *Eucalyptus rostrata* Schlecht., is a magnificent tree, attaining a height of 100–130 feet, and yields the most valuable building-timber, owing to the great hardness and durability of its wood. The White Gum or White Gum-tree, *E. Stuartiana* F. Mull., also grows to a considerable height, but does not possess such a dense and hard wood, although it is also much used for building purposes. The Blue Gum-tree, *E. viminalis* Labillar., a tree of medium height, with very hard and tough wood, much esteemed by wheelwrights. The Stringybark-tree, *E. obliqua* L'Herit., often attains a height of 140 feet; its wood, which can be split with great facility, is particularly useful for making shingles. The Peppermint-tree, *E. odorata* Behr., attains a medium height; its wood is used for making fence rails, or for kindling. The Ironbark-tree, *E. leucoxylon* F. Muell., of medium height, has hard and durable wood, used for building. The Box-tree, *E. hemiphloia* F. Muell., also has similar wood. The Mallee-tree or Mallee-shrub, *E. dumosa* A. Cunn., generally only attains a low size (shrub), but has a hard, dense, and tough wood. The same may be said of the Bastard Box-tree, *E. gracilis* F. Muell., a tall graceful tree, as well as of the Swamp Gum-tree (*E. siderophloia* Benth.). The Eucalypts possess, besides, many other useful properties, or yield valuable products. Not to speak of *E. globulus*, which is already well known, the leaves of *E. viminalis*, *E. Stuartiana*, and *E. citriodora* yield a valuable essential oil, which may also be obtained from some other species in smaller quantity; *E. obliqua*, *E. leucoxylon* and *E. rostrata* are used in the manufacture of wood-spirit, acetic acid and tar; and the barks of the latter three species and of *E. Stuartiana* are manufactured into a very strong and smooth paper.

Ignition of Hydrogen by Zinc.—In the chemical works at Ludwigshafen, formerly Saame & Co., large quantities of zinc chloride are made, during the preparation of which (by acting on granulated zinc with hydrochloric acid) on several occasions the escaping hydrogen took fire. This was at first attributed to carelessness of the workmen in handling lights, or to smoking in the workroom, but has now been ascertained to have been produced spontaneously. The violence of the reaction between large quantities of zinc and acid throws up pieces of metallic zinc, which, on coming in contact with the air, instantaneously absorb enough oxygen, with such an elevation of temperature that the mixture ignites, and hence sets fire to the whole of the hydrogen. The same phenomenon has heretofore been observed in other chemical works. It will therefore be advisable to adopt such precautions as will prevent the contact of the zinc with air, and at the same time will make the ignition of the hydrogen, if it should occur, harmless to the workmen or the buildings.

Repacking of Drugs, etc., for Exportation.—The Treasury Department has issued a circular in relation to the repacking of drugs, etc., by which existing rules are modified, as follows:

"For the exportation of drugs, medicines, or chemical preparations, otherwise than in the original packages, written application must be made to the collector of the port, where the same may be, specifying the name of the article to be exported, the number of original packages (or, if less than an entire package, the quantity thereof), and the kind of package in which it is proposed to export the goods, whether a box, chest, bag, or bale, and also giving the name of the vessel in which the original importation was made, and the date of such importation.

"The Collector will make the proper indorsement upon such application, directing the opening of the original package, if necessary, and the repacking of so much as may be specified in the application.

"The package so made up shall be marked and numbered in the same manner as the original package, and the name of the article to be exported should appear on the case.

"When two or more of the original cases or packages are repacked in one package for exportation, the packed package should be so marked as to plainly show all the marks and numbers of the original cases or packages, and the number of inclosures.

"No marks calculated to mislead as to the character of the merchandise will be allowed on such package.

"The officer in charge of the store in which the articles shall have been deposited will cause the opening and repacking to be done under his immediate supervision. When necessary, the merchandise will be weighed, gauged, or measured by the proper officer before being repacked.

"The labor performed must be under the supervision of an officer of the customs, and at the owner's expense.

"The shipper must deliver a manifest of the goods, on exportation, to the Collector of the port, as prescribed by Article 183 of these regulations."

JOHN SHERMAN, Secretary.

Burning of Apothecaries' Hall in Glasgow.—The stock and premises of the Apothecaries' Company in Glasgow was destroyed by fire on the 6th of June, at a loss of $150,000. The company had been in existence for eighty years, and had occupied the building for twenty-two years.

Adulterated Drugs in England.—*The Analyst* publishes a report based upon a large series of returns by public analysts and collated by Mr. Wigner, in which it appears that out of 403 purchased samples of drugs, 96 were adulterated.

Peruvian Nitre.—During the month of March, 23,001,811 pounds of nitre were shipped on private account from the ports of Iquique, Pisagua, Myillones, and Molle. During the same period the government exported 15,170,137 pounds for Europe and 7,188,337 pounds for the United States.

A New Mucilage.—The *Journal de Pharmacie* states that if 30 grains of sulphate of aluminum, dissolved in ¾ oz. of water, be added to 8½ fl. ounces of a mucilage of gum acacia, a strong mucilage will be formed, which will cement wood, porcelain, or glass.

Sea-Water Soap consists of common soap containing phosphate of sodium. This addition enables it to form a good lather with almost any natural water. The oldest form of marine soap was made of cocoa-nut oil, and required nothing additional to enable it to be used with sea-water.

Aniline in a Patent Medicine.—Patent No. 201,010, granted to Henry and Mary Harkins, in Sedalis, Mo., is described as a remedy consisting of alcohol, chloroform, tincture of capsicum, tincture of aconite, oils of sassafras, gaultheria, cajeput, and origanum, camphor, sweet spirits of nitre, and aniline!